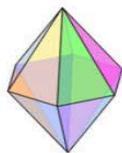


Characterizing loneliness in adolescents and young adults (AYAs) using social media

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This is collaborative work



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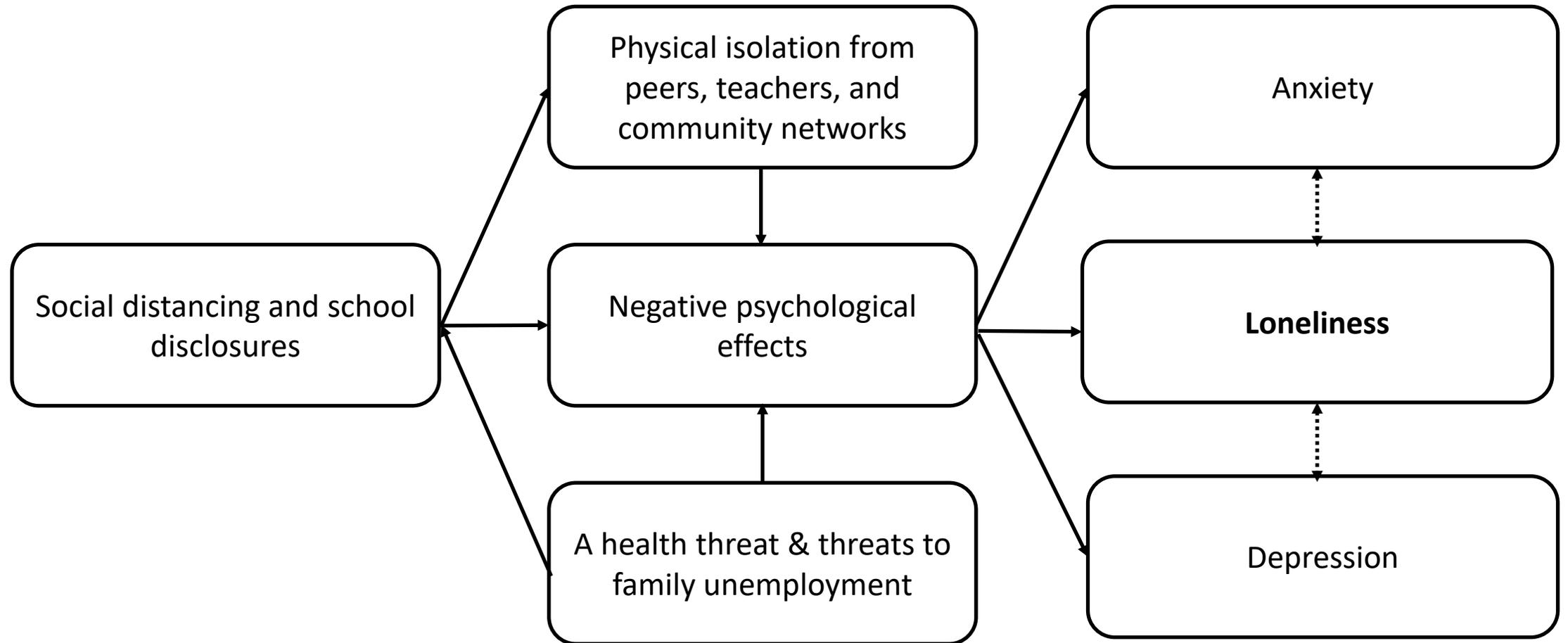


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H O P E L Δ B



COVID-19 and Loneliness in AYAs



We need to characterize the impact of
COVID-19 on AYAs' loneliness.

But how?

Working with Reddit data

Captures in real-time the language used by those sharing and processing their pandemic experiences online

Fills an interesting gap between social media and mental health disclosure

- Stigmatic concerns related to mental health disclosures
- Post limit of Reddit is 40,000 characters, compared to the 140-character limit of Twitter (good for contextual processing)

The goal of the project is to characterize loneliness discourse in AYAs and track changes of their loneliness experiences during the pandemic.

Overall Workflow



Reddit posts & comments



Extract Features

N-grams
LIWC
Topics
No. of posts/comments
...



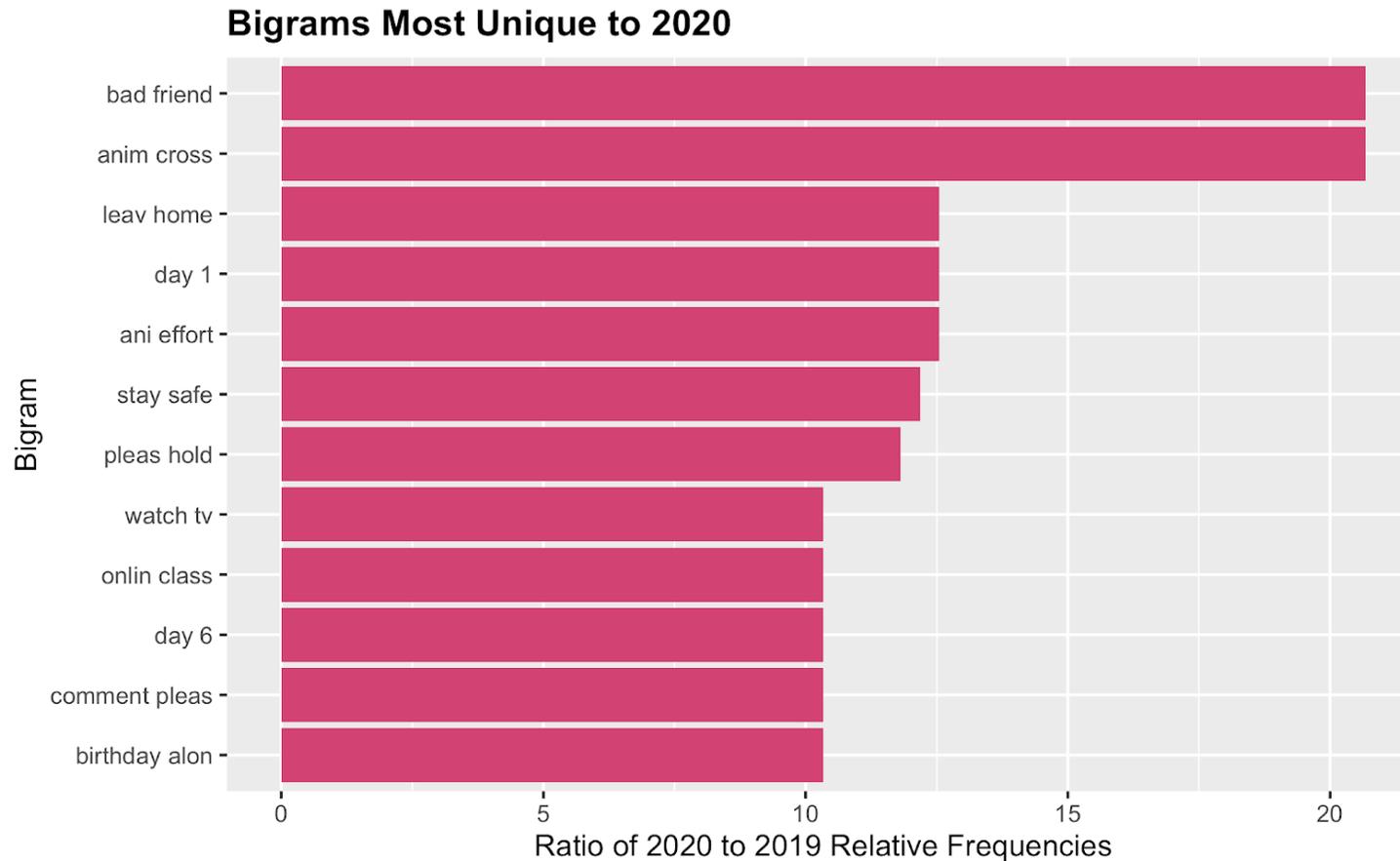
Compare across years

2018 vs. 2019 vs. 2020

Subreddits: r/teenagers, r/lonely, r/loneliness

Filters: age (self-disclosure), loneliness label (e.g., "I feel lonely", "I'm lonely")

Preliminary Results - Bigrams



Methods: Reddit posts containing variations of the word “lonely”

2019: 3,262(1.26%) posts; 2020: 5,093(0.98%) posts; March 1st – May 30th

Subreddit: r/teenagers

Topic Categories

2019

crushes



*school
social
distress*



*friend
drama*



2020

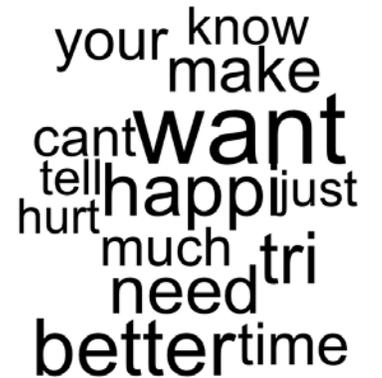
*seeking
social
connection*



reaching out



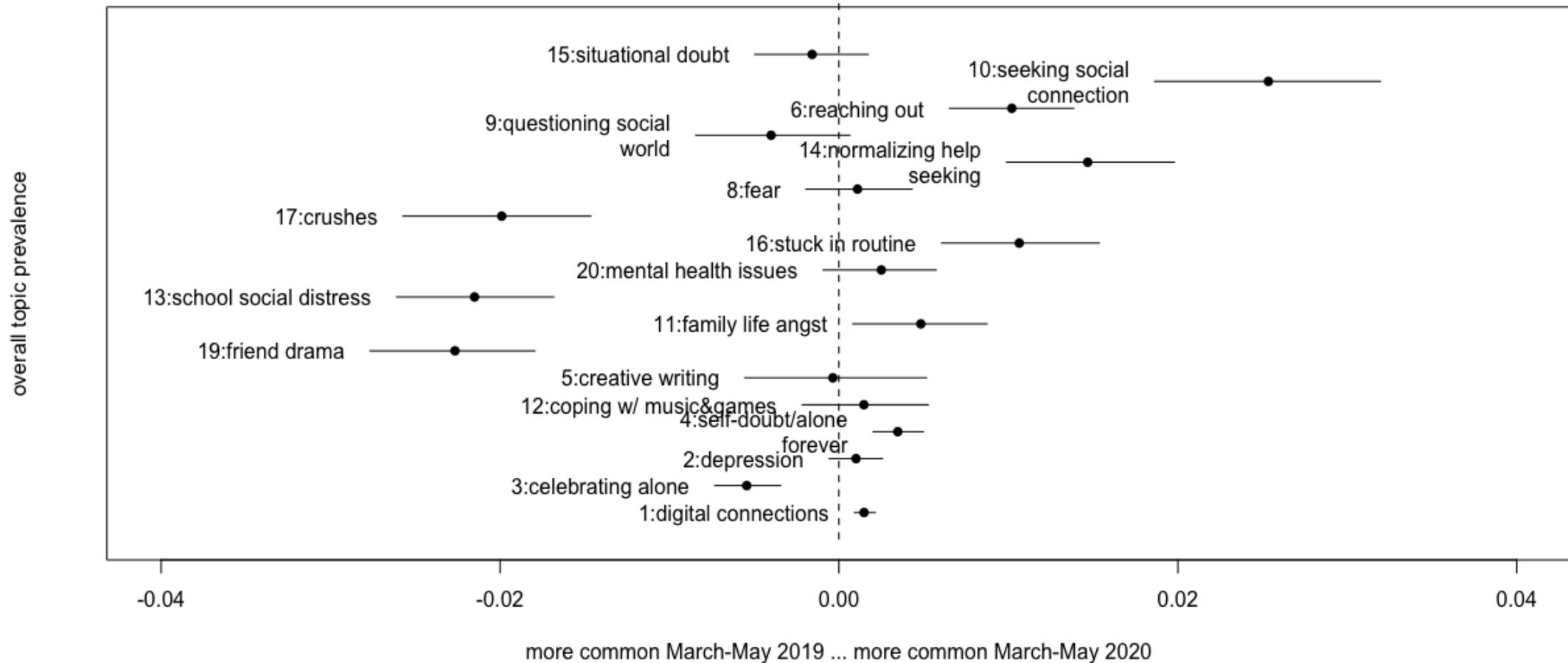
*normalizing help
seeking*



Methods: Reddit posts containing variations of the word “lonely”
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Topic Prevalence

Topic Prevalence Contrast Spring 2019 vs. Spring 2020



Methods: Reddit posts containing variations of the word “lonely”

2019: 3,262(1.26%) posts; 2020: 5,093(0.98%) posts; March 1st – May 30th

Subreddit: r/teenagers

Conclusion (Preliminary Analysis)

The proportion of all posts mentioning loneliness in the Spring was similar across 2019 and 2020, but the contents are different

- Adolescents posted more themes of school and friends in 2019 but demonstrated greater needs for social connection in the 2020 posts.

We also found that teenagers are both seeking and receiving support from each other throughout the COVID-19 pandemic, which suggests that peer support and resilience emerged in this group.

Feedback from the Audience

What are the potential instrumental variables that predict loneliness in AYAs, especially in the context of the pandemic? Can we capture them using social media or publicly available data?

How can we combine other data modalities to quantify the impact of COVID-19 on loneliness (e.g., browsing history, self-reported surveys, physical activities)

Other analysis ideas?

Thank you for listening!



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