INTRODUCTION

- Approximately 25% of college students share Facebook posts that demonstrate depressive symptoms online.
- Previous studies evaluate the capabilities of computer programs to accurately assess the mental health of social media users.
- Little is known about how adolescents react to social media posts that exhibit signs of depression.

METHODS

Study Design and Settings:
- Content analysis of example tweets exhibiting signs of depression.
- Survey of adolescents

1. Content Analysis:
   - Posts Selection:
     - Posts were found on Twitter.
     - Only posts that contained depression were written in English, and were public in this study.
   - Posts with images were excluded.

DSM-IV Criteria Variables:
- Agitation or Slowing Down of Movement
- Depressed Mood
- Depressed Interest or Loss of Pleasure
- Changes in Appetite or Sleep
- Fatigue or Loss of Energy
- Recurrent Thoughts of Death

- Codebook used had been verified in a previous study
- A sample of adolescents age 14-18 years
- Participants were recruited through Facebook, Twitter, and Reddit.

Variables:
- Adolescents first asked to rate symptoms from the DSM-IV criteria based on how indicative of depression they thought the symptom was with 1 being least indicative and 10 being most indicative.
- Adolescents were then presented with an example post that showed symptoms of depression, and asked participants what action they would take if they saw this post.

RESULTS

1. Content Analysis:
   - Five tweets were selected that exhibited varying symptoms from the DSM-IV Criteria

1. Survey:
   - Demographics:
     - 111 adolescents completed the survey
     - Average age of 16 years

DSM-IV Criteria Symptom Evaluation:
- Of the nine symptoms, adolescents strongly identified “feelings of worthlessness or guilt” as a symptom of depression.
- Adolescents only weakly identified “agitation or slowing down of movement” as a symptom of depression.

2. Survey:
   - Posts were analyzed to identify symptoms of depression.

RESULTS

1. Content Analysis:
   - The symptom “recurrent thoughts of death” received just as many 1’s as 10’s with 27 each
   - The only post that didn’t have over 70% of tweets was identified as a symptom of depression.

Response to Social Media Posts:
- Every single example post had the majority of responses as “talk to the friend”

- The only post that didn’t have over 70% of responses as “talk to the friend” was the one that made direct references to self-harm.

CONCLUSIONS

- The average adolescent correlated symptoms from the DSM-IV Criteria with depression.
- Adolescents could be used as a reliable way to pick up on symptoms of depression on social media posts.
- By understanding how adolescents react to posts on social media, healthcare providers could develop better methods of finding and assisting adolescents who are experiencing early signs of depression.

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