

News Media Through the Lens of Social Media: How Does It Impact Adolescents' Prosocial Behavior?

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Social media, while presenting various risks, also provides access to a substantial amount of news media content, which can have both positive and negative effects on adolescents. This paper aims to address the question of whether or not exposure to news media through social media in early adolescence influences adolescents' empathetic response to social issues and their likelihood to engage in prosocial behavior. The study uses a survey research design. It involved sending out a survey to adolescents between the ages of 13 to 21. It contained various sections exploring exposure to social media, exposure to news media through social media, and prosocial behavior. Exposure to news media was measured through participants' rating of "the percentage of news media posts one comes across while scrolling on social media" alongside their level of exposure to social media overall. Prosocial behavior in this study was explored in the forms of increased empathy, sharing news media posts, and taking action toward situations or events seen in the news. Pearson's correlation has been used for analysis. The main findings of this study show that negative news media exposure can cause emotional distress in adolescents. Out of the 30 surveyed 50% find themselves sometimes or frequently emotionally overwhelmed by negative news media content, the question used to identify this trend was "How frequently do you feel emotionally overwhelmed viewing news stories/articles that depict violence, suffering, or tragedy?". Regarding emotional responses, those who feel a higher level of compulsion to aid the situation after viewing news media are also more likely to take prosocial action, with Pearson's r value for this correlation being 0.478. The tendency of adolescents to share posts is positively connected with the popularity of the posts, indicating an increase in prosocial behavior with 16 of 30 participants responding that it is likely or extremely likely that they engage more with a post that has high popularity. Additionally, there is a positive correlation between prosocial conduct and engagement with social issues, the Pearson's r value being 0.672. This suggests that news exposure on social media can promote prosocial behavior by increasing sharing of posts related to social issues, enhanced empathy for others, and greater awareness of world events. A small sample size and convenience sampling limit the generalisability of the data. Furthermore, the questionnaire used is not previously validated. The correlations found in this study are moderate at best, therefore future studies can use a larger sample size to aid generalisability and validity. The possibility of a correlation between exposure and prosocial behavior can be further explored in future studies, taking other forms of prosocial behavior.

Keywords: Social media, news media, prosocial behavior, empathy, emotional regulation, adolescents.

Introduction

3.6 billion - that's the number of social media users (Kanchan & Gaidhane, 2023)¹. In our fast-paced world, social media has become a permanent part of our lives, with its uses constantly evolving. Due to this, there has been a surge of studies on social media use, examining its impacts, dangers, and benefits.

While numerous studies explore the negative side of social media—including its role in cyberbullying (Craig et al., 2020)² and emotional distress (López-Montón et al., 2024)³ — there are fewer discussing its positive applications. A quick search on PubMed with the keywords positive and social media easily demonstrates this. While there are 907 results in the past year, a scan reveals most of them are studies mainly evaluating the negatives of social media. The first five alone are about de-

pressed adolescents' use of social media (Radovic et al., 2017)⁴, body dissatisfaction (de Vries et al., 2019)⁵, and risky behaviors (Vannucci et al., 2020)⁶. Despite all these studies, the use of social media is not decreasing, instead, it is increasing at a faster rate than ever (Gonzalez et al., 2024)⁷. This makes it all the more important to explore the positives of social media use, and how it can be harnessed as a tool to better our world rather than a weapon. Today, with nearly half the world's adolescents constantly connected to social media (Jiang, 2018)⁸, the digital world plays a crucial role in shaping youth's willingness to help others.

Through social media, adolescents are often exposed to news media; whether it be wars halfway across the world, or missing cat flyers within their region. Most of them are exposed to social issues through this, but only some choose to help. From this,

an important question arises: why do some people rush to help while others remain bystanders? This question dates back to the tragic death of Kitty Genovese in 1964 when 38 witnesses failed to intervene. This incident initiated critical discussions in psychology about the factors that drive or inhibit prosocial behavior.

Adolescence is a critical period for the development of kindness and helpfulness (Crone & Achterberg, 2022)⁹. Factors like emotional regulation and strategic motivations—whether the recipient is perceived as “in need”—have been shown to influence prosocial behavior (Crone & Achterberg, 2022)⁹. These findings echo the conclusions of the classic “Good Samaritanism: An Underground Phenomenon?” study (Piliavin & Rodin, 1969)¹⁰, which found that people are more likely to help when they perceive a clear need for assistance. On social media, “need” can be signaled through metrics like likes and views, which may amplify prosocial behaviors such as sharing or donating.

Another key factor influencing prosocial behavior is emotional regulation. Emotions evoked by others’ distress often drive prosocial responses. A hopeful reappraisal strategy—interpreting distressing situations with hope for positive outcomes—increases positive feelings and boosts prosocial actions like donations (Brethel-Haurwitz et al., 2020)¹¹. Conversely, distancing reappraisal, which creates emotional detachment, reduces donations. Emotional dysregulation—the inability to manage emotional responses—can also decrease prosocial behavior (Elhousseini et al., 2023)¹².

Social media has been linked to increasing emotional dysregulation (Fitzpatrick & Boers, 2022; Hoge et al., 2017)^{13,14}, which could imply a decrease in prosocial behavior. Negative news media is shown to increase aggression and anger in some cases (Conzo et al., 2021)¹⁵ which could reduce prosocial behavior (Gamble et al., 2023; Lockwood et al., 2014)^{16,17}. However, social media also increases exposure to news media, creating awareness at a young age. Social media can boost prosocial behavior, such as blood donations, by raising awareness (Harrell et al., 2022; Zhang & Liu, 2024)^{18,19}. Social media can transform “statistical victims” into relatable individuals, fostering empathy and prosocial action (Moorlock & Draper, 2018)²⁰.

Although there is extensive research on factors influencing prosocial behavior, the emotional impacts of news exposure, and social media’s effects on mental health, limited research exists on the connection between social media news exposure and prosocial behavior. Exploring this link could open up new avenues for social media companies, parenting, and promoting prosocial behavior in adolescents. This study addresses the knowledge gap and explores the relationship between prosocial behavior and news media.

Methods

The main method used is a mixed-method questionnaire that primarily collects quantitative data (refer to Appendix for full questionnaire). The questionnaire has not been validated in previous studies. The questionnaire uses a variety of questions categorized into 4 main groups: questions that gather background information on participants; questions that gauge an individual’s level of exposure to social media and exposure to news media through social media; questions that address the type of news media individuals are most exposed to; questions that explore the consequences (emotional and prosocial behavior) of exposure to news media.

The forms of prosocial behavior explored are: enhanced empathy towards others in real-life situations, the act of aiding the situation, and sharing news stories via social media. The forms of emotional responses explored are compulsion to aid the situation, and whether or not individuals experience a feeling of being overwhelmed after viewing news media.

In addition to scoring the responses to the questions, two additional scores are used for analysis. These two are:

- Exposure - the sum of the level of news media % within social media content and level of exposure to social media. Both are rated on a scale of 1 to 5. The maximum score that can be achieved in this category is 10 and the minimum is 0.
- Prosocial behavior - This is scored out of 15. It involves a sum of the scores of three questions involving prosocial behavior: ‘To what extent does viewing news media enhance your empathy towards others in real life situations?’ - scored on a scale of 1 to 5; ‘How often do you share the news stories you view on social media?’ - scored on a scale of 1 to 5; ‘Did you take any action supporting/against this situation?’ This has only a yes or no answer, a yes is awarded 5 points while a no 0. It is a follow-up question to ‘What is the most recent issue in the world that you have engaged with?’

The Cronbach’s alpha value for measure of exposure is 0.127. As this is a pilot study this could be improved in future research. The Cronbach’s alpha value for the measure of prosocial behavior is 0.510, which is moderate and could be improved in future studies.

The questionnaire was created using Qualtrics. The recruitment process for the survey was conducted through opportunity sampling. An anonymous survey link was sent to individuals who the researcher had previous contact with around their age group (friends, peers, etc). The participants were requested to fill in the survey within a week. All participants had to be between the ages of 13 to 21.

The questionnaire went through three rounds of iterations as the aims of the study were identified and questions therefore tailored to match. It began as 11 questions, and expanded to 19 following the likert scale. This number of questions was chosen to ensure that the form wasn't too lengthy and participants would be unlikely to leave it incomplete. No pilot testing was conducted before the study.

The final sample size is 30 people, although there is some missing data with a few of the responses. The tool JASP has been used to conduct data analysis and look for correlations within the responses.

The data analysis methodology used is Pearson's correlation. The relationships between various forms of prosocial behavior and social media exposure were tested. The relationship between positive/negative news media and prosocial behaviors and emotional regulation was also tested. Missing values were dealt with by excluding cases pairwise.

Results

Table 1 Level of exposure to social media in adolescents

How often would you say you use social media?	Count
Very frequently (multiple times a day)	19
Frequently (almost daily)	11
Sometimes (once in a few days)	1
Rarely (a few times a month)	0
Never	1

Most adolescents surveyed have a high level of social media exposure. Table 1 shows that 19 out of 31 participants reported using social media "very frequently." Instagram is the primary form of social media being used by a high majority of 17 out of 31 participants being surveyed.

Table 2 Level of exposure to news media through social media

Statistic	Value
Mean	2.8
Maximum	5
Minimum	2

Note: the question being asked was 'When scrolling through social media what percentage of posts you come across contain news stories and/or articles about current events?'

It was also found that most adolescents within the age range of 13 to 21 are exposed to news media through social media. The levels go from lowest, level 1, 0% of posts contain news media, to highest, level 5, 76-100% of posts contain news media. As Table 2 shows, the range of responses is between level 2 to level 5 with a mean of 2.8. This means no participant felt as

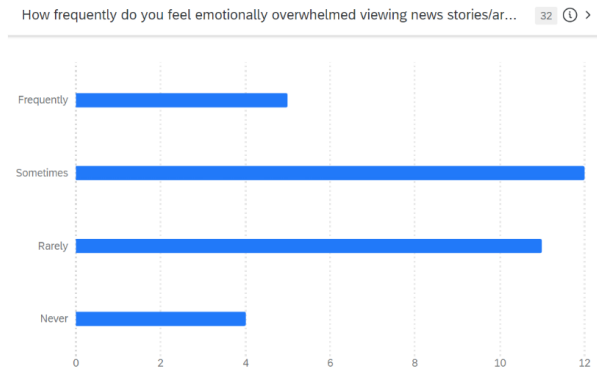
though they were not exposed to news media at all. This just shows the importance of research on this topic as it is something most adolescents are exposed to.

Table 3 Pearson's Correlations between Compulsion to Aid and Prosocial Behavior

Statistic	Value
Pearson's r	0.478
p value	0.009

There is also a moderate positive correlation between the compulsion to aid and prosocial behavior as depicted by Table 3. (Compulsion to aid was rated on a scale of never 1 to almost always 5). A third variable influencing both these factors could be the baseline level of empathy a person possesses. However, further research would need to be conducted to prove this.

Figure 1:
Frequency of feeling overwhelmed viewing negative news media



Note: The question asked is 'How frequently do you feel emotionally overwhelmed viewing news stories/articles that depict violence, suffering, or tragedy?'

As predicted exposure to negative news media is likely to elicit a negative emotional response in adolescents. Out of the 30 surveyed 50% find themselves sometimes or frequently emotionally overwhelmed by negative news media content, as shown in Figure 1.

Table 4 Pearson's Correlations between Engagement and Prosocial Behavior

Statistic	Value
Pearson's r	0.619
p value	<0.001

There is also a strong positive correlation between those who recently engaged with a prosocial issue and those who have overall high levels of prosocial behavior.

Table 5 Pearson's Correlations between the Level of Engagement and Whether or Not an Action Was Taken

Statistic	Value
Pearson's r	0.672
p value	<0.001

Furthermore, there is a high correlation between those who recently engaged with an issue and those who took action about the issue (a form of prosocial behavior also considered in the overall prosocial behavior score).

Table 6 Likelihood of Engaging with a Post with High Popularity Compared to One with Low Popularity

Are you likely to engage more with a post that has greater popularity (i.e., higher views or likes) than one that doesn't?	Count
Extremely unlikely	0
Unlikely	3
Neutral	11
Likely	13
Extremely Likely	3

Another finding is that as predicted the popularity of a post can influence how likely it is for individuals to share or interact with it i.e. how likely it is for individuals to display prosocial behavior (Table 6).

A correlational analysis was also done between the level of exposure to news media through social media and the level of prosocial behavior. However, no statistically significant correlation was found between these two ($p=0.541$, $r=0.118$) This result could simply be a result of the small sample size, however, and does not prove or reject the null hypothesis.

Furthermore, separate correlational analyses were conducted between potential confounding variables (age, gender, and economic status) and the dependent variables (prosocial behavior, whether or not the person took action, empathy, and compulsion to aid). The only statistically significant correlation was between economic status and whether or not action was taken. It showed a moderate correlation ($p=0.037$, $r=0.389$). This suggests that economic status may be a potential confounding variable in the study.

Discussion

The study confirms that adolescents are highly exposed to social media and news media through different forms of social media. This aligns with the trend of increased social media use among adolescents in recent times. The high exposure highlights how important it is to understand how news media exposure from

social media affects adolescents' prosocial behavior and empathetic responses. The survey also proves that exposure to negative news media is correlated with negative emotional responses. This supports that people who view negative news media may hence also be less likely to exhibit prosocial responses. This is due to the negative emotional response correlated with negative news media.

However, much like previous studies (Mousoulidou et al., 2024)²¹ there isn't a clear correlation between positive news media and prosocial behavior. There also isn't a correlation between news media exposure and prosocial behavior. This could be due to various limitations of the study. The types of prosocial behavior and news media explored are highly specific. The study doesn't account for different types of news media. This could include politics, current events, etc. The study uses researcher-defined measures of prosocial behavior instead of the previously identified categories of: comforting, helping, and sharing (Dunfield, 2014; Wu & Hong, 2022)^{14,22}. The sample size is relatively small and therefore may not be enough to come to concrete conclusions.

The positive correlation between the popularity of posts and adolescents' likelihood to share or engage with them indicates that highly visible or popular content is more likely to inspire prosocial behavior. This aligns with the hypothesis that the visibility/popularity of a post on social media can enhance engagement with prosocial actions. The moderately positive correlation between prosocial conduct and compulsion to aid suggests that adolescents who feel a stronger want to assist are more likely to engage in prosocial activities. This study confirms earlier results that emotional responses and empathy play a role in motivating prosocial conduct. It also highlights how important emotional reactions are in promoting prosocial conduct. The positive correlation between involvement with social issues and prosocial behavior suggests that exposure to news media might increase awareness and empathy, which can hence result in higher levels of prosocial actions. These results highlight the role of social media as a platform for increasing awareness and promoting engagement, supporting the idea that being exposed to social concerns can lead to specific prosocial activities.

Social media companies may use this information to promote inspiring and uplifting content, which could raise awareness of social issues and encourage greater prosocial activity. The link between emotional dysregulation and reduced prosocial behavior shows the importance of mental health support for adolescents, especially those dealing with the repercussions of over-exposure to negative news media. Workshops on increased emotional regulation in adolescents could also enhance prosocial outcomes.

The study also notes that 50% of participants often felt emotionally overwhelmed, after viewing negative news media. This is a trend seen in previous studies as well (Bazán et al., 2021)²³. However, those who engaged more with social issues still ex-

hibited greater levels of prosocial behavior. This means schools could incorporate media literacy programs to teach students how to manage emotional responses to negative content and encourage them to engage with social issues in a healthy constructive way.

A correlation was found between economic status and whether or not an action was taken (ie prosocial behavior was exhibited). This means economic status could act as a confounding variable influencing this aspect of participants' prosocial behavior.

Due to the relatively small sample size of 30 adolescents, the results may be difficult to generalize. Furthermore, the sample is not representative as participants were recruited through opportunity sampling. A larger and more diverse sample may provide a more comprehensive understanding of how news media exposure through social media may be correlated with prosocial behavior. In future research, stratified random sampling could be employed to ensure diversity in demographics such as age, gender, socio-economic background, and geographic location.

As the study uses self-reported data, this may introduce bias as participants may underreport or overreport their emotional responses and/or prosocial behaviors. In the future conducting observational or experimental studies may provide more accurate results. As this is a correlational study it also isn't possible to assume a causal relationship within the variables being compared.

The study also utilizes a cross-sectional design, hence the data collected does not take into consideration changes over time. The observed trends or lack thereof could result from confounding variables. This includes situational variables: Ongoing or recent significant news events (e.g., elections, natural disasters, political scandals) can temporarily influence media consumption behavior, leading to misleading conclusions if these are not accounted for; people's engagement with news media on social media can vary based on the time of day, day of the week, or even season; whether participants access social media via a smartphone, tablet, or desktop could influence their engagement and attention span. Future research can include using a much more diverse population studied over a period of time.

Future research could also implement different methods such as longitudinal or experimental means to gain more accurate results. Furthermore, later studies can also explore the concept of diffusion of responsibility as shown by Darley and Latane (1968). In the context of social media, diffusion of responsibility may be exhibited. Social media platforms are large platforms, and hence it is easy for individuals to assume that someone else would help the person or people in need, and hence people may not exhibit prosocial behavior despite being exposed to world issues through social media.

If this study were to be re-conducted, previously validated measures could be used to measure prosocial behavior and social media usage. For prosocial behavior, the prosocial tendencies

measure could be used (Reig-Aleixandre et al., 2023)²⁴. The social media disorder scale (Boer et al., 2021)²⁵ could be used to measure social media use, however, it specifically measures problematic social media use, which would alter the aims of the study. Another option is the social media use scale, a previously validated measure as well (Alison B. Tuck et al., 2023)¹²

This research highlights the intricate relationship between social media, exposure to news media, and the prosocial behaviors of adolescents. While social media platforms can enhance awareness of societal issues and increase engagement, the effects of news exposure are shaped by emotional reactions, the visibility of content, and individual factors. Negative news is correlated with feelings of distress, which could diminish prosocial behaviors, whereas more popular content (i.e. has more likes) may stimulate positive engagement.

The limitations of this study, which include a small and non-representative sample, reliance on self-reported data, and a correlational framework, highlight the necessity for additional research. Future investigations should utilize varied sampling techniques, longitudinal approaches, and validated assessment tools to achieve a more comprehensive understanding of these interactions. Additionally, examining concepts such as the diffusion of responsibility in digital environments could yield significant insights.

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