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Motivations for Providing Social Support on Social Media

by

Yuehan Liu

Under the Direction of Cynthia Hoffner, PhD

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2023

ABSTRACT

Social support provision plays an important role in the mechanism of exchanging social support on social media. Support provision can be beneficial to both receiver and provider. Grounded in the empathic-altruism hypothesis (Batson et al., 2011), negative-state relief model (Cialdini et al., 1987), need to belong theory (Baumeister & Leary, 1995), and work on impression management, this study sought to examine how altruistic traits (empathic concern, perspective-taking), egoistic traits (need to belong, negative affect, impression management), belief in altruism, and outcome expectations play a role in support provision on social media. College students (N=418) completed an online survey. Hierarchical multiple regressions tested how altruistic and egoistic traits predicted support provision on social media and offline, and whether belief in altruism moderated the relationship between altruistic traits and support provision on social media. A scale was developed to measure altruistic and egoistic outcome expectations for providing support on social media. Structural equation modeling (SEM) examined outcome expectations' potential mediator role between altruistic and egoistic traits and support provision on social media.

Neither altruistic trait (empathic concern, perspective taking) predicted support provision on social media, but when belief in altruism was included as a moderator, perspective-taking was associated with greater support provision for respondents who held a stronger belief in altruism. Further, the SEM analysis found an indirect positive relationship between empathic concern and support provision on social media, mediated by altruistic outcome expectations. Regarding egoistic traits, impression management positively predicted support provision on social media, but affect balance and need to belong did not. However, when negative affect and positive affect were examined separately, both were positively related to support provision on social media.

Similar analyses examined predictors of providing social support offline, to explore differences to the social media context.

The finding of this study broadened understanding of the factors that motivate individuals to provide social support on social media and offered deeper insights into the role of empathy and emotions in the context of support exchanging mechanisms on social media. This study concludes by addressing its theoretical contribution, practical implications, as well as the limitations and future research directions.

INDEX WORDS: Social support provision, social media, Egoism, Altruism, College students, Outcome expectations, Emotion, Impression management

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Motivations for Providing Social Support on Social Media

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December 2023

DEDICATION

This dissertation is dedicated to my husband Tianchi Zhang, for his unwavering companionship and support during every phase of this challenging yet fulfilling journey, and to every friend who has been there for me through all my ups and downs. I could not have completed this journey without the support I've received. Additionally, this dissertation is dedicated to my parents, whose support has been the foundation of my journey, for which I am profoundly and eternally grateful.

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1 INTRODUCTION

With the development of social media, how people build social relationships and communicate with each other has changed. There are numerous kinds of online communities for nearly all interests so that people can more easily find people who share a similar background (Ryan et al., 2017; Webb et al., 2008). Every internet user can express their ideas about specific topics to the mass public. And if they want, people can share their stories on the internet without letting others know their identity (Gearhart & Zhang, 2014; Neubaum & Kramer, 2017). The convenience of social media created a unique environment for people to build new relationships or exchange support even with strangers (Cho, 2007; Vitak & Ellison, 2013).

The internet's open environment benefits people by building new social relationships and maintaining existing relationships. Scholars observed people frequently manage their existing social relationships online (Cole et al., 2017; Gibbs et al., 2006). The unique characteristics of online platforms, such as asynchronicity, direct messaging, and hashtags, help people to break through the constraints that could happen in offline situations, such as time and location (Coursaris & Liu, 2009; White & Dorman, 2001; Yoo et al., 2014). The use of social media to connect with others has also been emphasized during the COVID-19 pandemic (Rosen et al., 2022; Wong et al., 2021). Since people faced the situation of lockdown, remote working, and remote studying, the difficulty of having face-to-face communication increased, which led to a significant increase in social media usage. Researchers used mixed methods to examine Spanish adults' social media usage during the pandemic. They found out that their social media use dramatically increased during the pandemic across age and sex (Rosen et al., 2022). The qualitative data from Rosen and colleagues' study further suggested that the participants were leveraging the use of social media during the pandemic mostly serving two functions. The first

was to seek informational support by using social media to find COVID-19-related news and learn new ways to stay healthy (such as wearing masks or at-home exercises). Secondly, participants also reported using social media to seek emotional support and stay connected with friends and family (Rosen et al., 2022). The increase in social media usage could be based on several reasons caused by the pandemic, such as stress, loneliness, anxiety, and lack of certainty (Drouin et al., 2020; Li et al., 2020). Especially for people with a higher rate of anxiety, social media was serving as a tool to help cope with the negative emotions that occurred during the pandemic.

The increasing social support-seeking behavior on social media also emphasizes the need people have for social support. Social support is important in people's overall well-being and can be exchanged in different social relationships (Goldsmith & Albrecht, 2011). Social support aims to let people feel or experience being cared for, supported, and esteemed in a social network (Taylor, 2011). Theorists Cohen and Wills (1985) proposed two models to explain why and how social support benefits people: the main effects model and the buffering model. Based on the main effects model, regardless of stress level, there is a direct positive relationship between social support and mental health, which means that people with high social support could have better mental health than those with low social support. And the buffering effect emphasizes the benefits of social support more under the circumstances of stress and states that social support could protect people against the stressor's negative impact. Cohen and Wills' (1985) two models of explanation shed light on why it is important to better study social support's mechanisms. Social support could be beneficial to different people in different situations. For example, during a stressful event like the COVID-19 pandemic, which has created heavy emotional and psychological burdens for many people, social support could help them ease the weight of such a

crisis on their mental health (Li et al., 2021). Utilizing social media to increase people's social support exchanging experience could also enhance people's overall well-being.

Social support can be categorized into different types, including receiving, perceiving, seeking, and providing social support. (Taylor, 2011) While many theorists emphasized the benefit of receiving social support, a few recent studies highlighted the potential benefits of being a social support provider. For example, providing social support to others can help one to construct social relationships and maintain social bonds (Inagaki & Orehek, 2017). Researchers found that providing social support to others is rewarding and could lead to greater positive affect, such as increased self-esteem and self-worth (Piferi & Lawler, 2006). Also, Inagaki and Orehek (2017) state that because providing care for others is a part of human nature, especially during a time of need, giving others support may reduce the stress response for the support provider. From the provider's perspective, giving others support can trigger the body's own reward-related psychological and neurobiological mechanisms. It also reduces social withdrawal.

The social support-providing behavior is an important aspect of the social support exchange mechanism (Inagaki, 2018; Liu et al., 2020; Piferi & Lawler, 2006). Yet limited research examined what motivates people to provide social support on social media (Li et al., 2015; Maier et al., 2015; Oh & Syn, 2014). Compared to receiving or perceiving social support, providing social support generally requires people to put in more effort. Providing support to others could involve a cost to the support provider, such as being stressful, time-consuming, or a burden (Robertson et al., 1991). Therefore, it is important to study people's motivation for providing social support.

Current discussions about what drives people to help others generally include two types: altruistic motivation and egoistic motivation. Altruistic motivation emphasizes benefiting others

in need (Batson et al., 2015). Egoistic motivation focuses more on benefiting the self and the desire to receive rewards or to reduce one's own distress (Batson & Shaw, 1991; Piferi & Lawler, 2006). To better understand how these motivations affect people's intention to provide social support on social media, this project will use a quantitative cross-sectional survey with college students to examine social support provision from both altruism and egoism perspectives.

Based on the empathy-altruism hypothesis, the altruism perspective indicates empathy as a trigger for people's prosocial behavior because it can arouse people's altruistic motivation. The concept of empathy is a complicated construct. This project adopted two distinct phenomena concluded by Batson (2009), which represent the idea of empathy: empathic concern and perspective-taking. Empathic concern is an affective facet of empathy, and perspective-taking represents more of a cognitive element. From the altruistic aspect, this study aims to look at how these two types of empathy can motivate people to provide social support.

The egoistic perspective holds the view that people help others for their own benefit. Two theoretical frameworks related to this viewpoint include the negative-state relief theory and the need to belong theory. The negative-state relief theory believes that when people are feeling negative emotions, they tend to engage in activities that can help them feel better, such as helping others. In such a situation, they are likely to provide social support to people in need. Therefore, based on the negative-state relief theory, this project will examine the relationship between people's negative affect and their support provision on social media. The need to belong theory emphasizes how human beings have a need for a sense of belonging, which could lead to people's form and maintaining social relationship behaviors. A need for belonging could potentially motivate people to provide social support to others on social media in order to benefit personally, consistent with the egoistic perspective.

However, a lack of research compared and examined how altruistic or egoistic motivation could drive people to provide social support to others on social media generally. To fill this research gap and to better understand the mechanism of people's social support provision on social media, this study aims to examine the factors that may affect people's providing social support behavior on social media from both altruistic and egoistic perspectives. To be more specific, how empathic concern, perspective-taking, negative affect, need to belong and impression management could be related to support provision on social media. Further, this study investigates the potential influence of belief in altruism and outcome expectation have on the relationship between motivational traits and support provision on social media. This study could contribute to both the theoretical understanding of the motivation of prosocial behaviors and the practical implications of foster providing social support behaviors on social media.

2 LITERATURE REVIEW

2.1 Social support

Social support refers to "the exchange of verbal and non-verbal messages conveying emotion, information, or referral, to help reduce one's uncertainty or stress" (Walther & Boyd, 2002, p. 154). The importance of social support is highly related to human beings' habit of group living, which can be traced back to 52 million years ago (Taylor, 2011). Since then, human beings have adapted to survive by exchanging help and providing mutual support (Caporeal, 1997; Dunbar, 1996; Taylor, 2011). People today are still highly dependent on the social support of others, especially when under stress (Chen & Bello, 2017; Leung, 2007). For example, after the September 11 terrorist attacks, people reported some of the most common coping methods they used to deal with this threatening event was turning to others, including friends, family, or even strangers (Galea et al., 2002). People's need for social support is also undeniable when dealing with daily life challenges and has even become one main reason for social media usage (Baumeister & Leary, 1995; Kietzmann et al., 2011). Through interviews with international students in the United States, researchers found that online communities via social media are one of their main coping methods when dealing with challenges, such as loneliness, stress, and difficulties adjusting to a new culture (Baines et al., 2022).

Today, through examining social support, researchers found that it is an important factor in people's overall well-being (Gilmour et al., 2020; Kim, 2014; Taylor, 2011). Social support shows its benefits to people's physical and mental health, such as reducing depression or anxiety and providing people with effective stress-buffering if the support can meet the demand of the stressor (Lahey & Orehek, 2011; Oh & Syn, 2014; Taylor, 2011). Social support is now widely

acknowledged by researchers as a critical resource for people to manage stress and increase overall well-being (Taylor, 2011).

2.1.1 Conceptualizations of social support

Social support can be put into four categories, including receiving social support, perceiving social support, seeking social support, and providing social support (Liu et al., 2020; Taylor, 2011). This study focuses on the last category, providing social support, but an overview of all four types is provided because they are interconnected. Among the four categories of social support, the receiving of support has caught the most attention from researchers. Receiving social support refers to the actual supportive behavior that people could experience (Taylor, 2011). Whether in online or offline scenarios, receiving social support seems directly beneficial to people (Chen & Bello, 2017; Yoo et al., 2014). For example, a study found that people with higher quality and quantity of social support have a lower risk of early death (Herbst-Damm & Kulik, 2005). And for people with alcohol dependence, receiving emotional support can improve their coping status (Yoo et al., 2019). During the COVID-19 pandemic, the more social support adolescents received positively correlated with their mental well-being (Qi et al., 2020).

Researchers also found that sometimes people don't need to receive actual social support to benefit from it; people's perceived social support could also be beneficial. Perceived social support means people's perception of the availability and adequacy of social connections (Eagle et al., 2019). Perceived social support pays more attention to how much support a person believes can get within their network, in other words, to what extent one believes people in their network can help them (Helgeson, 2003). The meaning of perceived social support suggested that instead of a true reflection of how much support one receives, simply the belief of having a high perceived social support could increase a person's well-being. For example, during the

COVID-19 pandemic, people with high perceived social support had a significantly lower risk of poor sleep quality and lower depression symptoms than those with low social support (Grey et al., 2020).

People face different challenges in their daily life, and where and when people need support from others varies. Therefore, active support-seeking behavior could help them to receive support more effectively. Seeking social support is defined as "intentional communicative activity to elicit supportive actions from others" (MacGeorge et al., 2011, p. 330). People actively seeking social support can increase their chances of receiving it in their needed time. Seeking social support behavior requires people to actively self-disclose and ask for help. The behavior of seeking social support could also benefit people in different scenarios. For example, the researcher found that seeking social support could moderate the relationship between Black women's perceived racism and systolic blood pressure changes (Clark, 2006). Research shows that cultural differences could shape the forms of social support people prefer and why people seek it.

Finally, providing social support refers to the social support one gives to others (Brown et al., 2003). Among the social support exchange mechanisms, receiving social support is not independent of providing social support (Taylor, 2011). The exchange of social support on social media requires interactions from two or more parties. Therefore, social support provision is an important category because social support can only benefit recipients when someone is willing to provide social support. Studies highlighted the potential benefits of being a social support provider (Brown et al., 2003; Chen & Bello, 2017; Inagaki & Orehek, 2017). For example, researchers found that providing social support to others is rewarding and could lead to greater positive effects. To be more specific, researchers indicated that providing informational support

to others can facilitate self-reflection, and giving emotional support help providers feel more efficacious and energized (Namkoong et al., 2013). Some other general positive effects that providing social support to others could potentially bring to the provider in the long-term also include increased self-esteem and self-worth (Piferi & Lawler, 2006), the strength of the provider's own support exchanging network and decrease self-pity and self-absorption (Brown et al., 2003; Pagano et al., 2009).

However, providing social support to others does not always benefit the provider. While compared to the other kinds of social support, social support provision seems to be less beneficial and could cause burdens such as efforts in time and energy, which further increase exhaustion. When people feel burnout because of the social support-providing behavior, it could further reduce their own feelings of personal capability and concern for other people and cause a decline in intention, in general, helping behavior (Liu et al., 2020). Such situations further emphasized the need to study more about social support provision.

2.1.2 Types of social support

The concept of social support is an umbrella of several specific forms of exchanging behavior or intentions. Cutrona and Suhr (1992) proposed a five-category system of social support, including *informational support; emotional support; esteem support; network support; and tangible assistance*.

Information support refers to the type of supportive messages containing knowledge or related facts. For example, during a stressful event, one can provide information support to help other people better understand that event and give resources or coping strategies to deal with it (Taylor, 2011). Through such information, A person under stress could reduce their sense of uncertainty and determine how to manage it (Liu et al., 2020). *Emotional support* aims to help

people with their emotional needs. Through messages containing warmth and nurturance, emotional support could help the recipient think they are valuable and deserve care from others (Yoo et al., 2014). *Esteem support* is targeted to help people build up more confidence and self-concept. Esteem support could contain three dimensions: a compliment, validation, and relief of blame. A compliment provides a positive comment about the other's personality or other abilities. Validation provides esteem support by showing agreement with other people's perspectives. Finally, relief from blame could help alleviate people's feelings of guilt (Coursaris & Liu, 2019). *Network support* could broaden people's social networks by connecting them with others with a shared interest or situation. Network support also provides people with a feeling of belonging to a group. *Tangible assistance*, also called instrumental support, means the support that could help people's daily living. Tangible assistance provides people with specific material help or assistance (Feeney & Collins, 2015).

Some scholars consider the above forms of social support as functional support, which is normally assessed by the specific functions that individuals serve for others (Taylor, 2011). While assessing social support, other than functional support, scholars also could measure structural social support, which is involved with an individual's interconnection with their social relationships. Structural social support is also referred to as social integration and can be assessed by the number of relationships a person has or the frequency of contact with the network members.

2.2 Social support on social media

Nowadays, social media are one of the most popular online applications, which allow people to establish, maintain and develop social networks (Chai et al., 2019; Su & Chan, 2017). Therefore, it makes sense that more social support exchange behaviors are happening on social

media sites. In fact, scholars found that obtaining social support is one of the main motivations for people to use social media (Kim et al., 2011; Li et al., 2015). And because of their distinct affordances, social support on social media contains several differences from traditional social support in offline scenarios.

Young adults are one of the main age groups for social media usage. Approximately 90 percent of young adults reported visiting social media sites daily, with the majority using two or more (Auxier & Anderson, 2021). Interacting through social media has become one of the primary ways for young adults to communicate and express themselves. Based on the popularity of social media, researchers indicated that it would be increasingly interconnected with people's offline life (Andalibi, 2018).

The term social media refers to the use of the internet or mobile-based channels to interact with others in real-time or asynchronously (Carr & Hayes, 2015). Popular social media sites, such as Facebook, Instagram, Twitter, YouTube, and TikTok, have been increasingly adopted by people to exchange social support (Nadkarni & Hofmann, 2011; Rains & Keating, 2011). Social media can provide users with different functions, such as sharing, learning, or interacting. These functions are provided through various features, like blogs, gaming, photo or video sharing, and social networking (Statista, 2022). Along with the development of technology, social media has been involved in people's daily lives. According to Statista (2022), as of April 2022, there are more than 5 billion active internet users worldwide, and a total of 4.7 billion are social media users. Young adults constitute the largest percentage of social media users and are also the earliest adopters of new social media platforms (Auxier & Anderson, 2021).

Researchers also examined what types of social support were provided the most on social media through content analysis methods. Eichhorn (2008) analyzed online eating disorder discussion boards and identified informational support to be the most frequent type of social support provided in the group. Mejova and Lu (2022) explored 4 million tweets containing the topic of loneliness and found that the most common type of social support is provided under such topics as emotional support. From Eichhorn and Mejova and Lu's research results it seems that the type of social support provided on social media might differ from the platform or topics, yet a lack of research examines what factors cause such differences in the type of support provision.

2.2.1 Social media affordance for social support

The increasing use of social media sites as an alternative to traditional communication is based on the many benefits social media can bring to people. One of the major benefits that social media brings to people for social interaction is breaking the constraint of physical proximity (Bambina, 2007). In many situations, face-to-face communication could be challenging to accomplish. For example, during COVID-19, many people have been required to stay at home. For such remote working situations, expecting normal in-person communication would make less sense. However, social media's affordance allows people to exchange social support from anywhere (Rains & Keating, 2011). Besides communicating with existing relationships, the lack of physical proximity constraint could also lower people's cost of building new relationships or joining an online group. Especially for people with more difficulty in having face-to-face communication, the affordance of social media could ease some weight for the peer pressure to join a new group or relationship and be easier to access social interactions (Yang et al., 2018). The asynchronous characteristics on many online platforms also help people

conquer the required time problem. Breaking the time constraint allows people to receive far more information from others.

One of the most mentioned disadvantages of social support on social media is also the asynchronous settings (Wright, 2000). Even though asynchronous allows people to break through the restraint of time and location, providing the possibility to contact more people at the same time. However, it also caused the situation of inability to have an immediate conversation between the support recipients and providers. While researchers highlighted a positive relationship between people's perceptions of immediacy and emotional support (Campbell & Wright, 2002).

Some scholars argue that even though online interaction lowers the cost, it also attenuates the amount of information people can communicate based on a lack of nonverbal cues. Some early research stated that human interaction without nonverbal cues could only create impersonal, uninhibited, negative communication without intimacy, and the environment limited people's social interaction or sharing of emotions (Sproull & Kiesler, 1991). Other scholars argued that, based on research, positive emotional expressions were perceived as more normative on social media than negative emotional expressions (Waterloo et al., 2018). The exchange of positive emotions on social media highlighted social media's affordance of forming intimacy and positive social interaction (Bambina, 2007). Later studies presented social support on social media as being similar to face-to-face communication and superior in overcoming some limitations in traditional communication (Carr & Hayes, 2015).

Unlike face-to-face communication, some online interactions could be broadcast for all network members to see. Therefore, compared with traditional social support, online interaction could involve more self-presentation factors (Wang et al., 2018). Although self-presentation is

one of the major motivations for people's social media usage (Seidman, 2013; Zhao et al., 2008), it not only impacts individuals' identity construction but also affects mental health. We can find two types of self-presentation on the internet: ideal self-presentation and authentic self-presentation. At the same time, ideal self-presentation focuses on presenting one's better self. Authentic self-presentation reflects the behavior of people who authentically share their thoughts, feelings, and experiences with others (Kim & Lee, 2011; Wang et al., 2018). Studies found that authentic self-presentation could enhance people's well-being, such as decreased depression (Kim & Lee, 2011).

Social media enriches people's way of interaction and communication, making it more convenient to develop and maintain social relationships (Zhan et al., 2016). From the perspective of developing new relationships, the affordances of social media (e.g., hashtags, broadcasting) provide users the opportunities to reach a larger population, which makes it easier to find people with shared interests or experiences. Moreover, social media also enhances the possibility of exchanging social support with people's weak-tie social relationships and even with strangers. Weak ties refer to relationships in which people don't know each other very well or know each other from a secondary association like colleagues or neighbors (Granovetter, 1983). For example, people on average have hundreds of Facebook friends, and many of these are weak-tie relationships. Yet based on the characteristic of Facebook, people can easily access news posts by all their Facebook friends and comment on them (Vitak & Ellison, 2013). From the support receiver's perspective, the affordances of social media allow them to potentially receive more support from diverse perspectives than just from close relationships, which could allow them to gain access to some new or hard-to-find information.

Other than enhancing people's potential interaction with their existing weak tie relationships, social media also increase the likelihood of interacting with strangers. Many social media allow users to explore other people's posts based on content by using functions like a hashtag (Rauschnabel et al., 2019). Therefore, people can directly explore any topic that they are interested in, read other people's posts, and even interact with others by leaving comments.

The affordances of social media are especially helpful for people with limited resources offline. Some social groups found it more challenging to seek social support offline, such as people with HIV or people with mental illness. The offline environment could be difficult for these social groups based on the factor of stigma. Stigma refers to an attribute that is discrediting (Goffman, 1963). Goffman believes that stigma happens within relationships, while the one being stigmatized is lowered from the whole. Stigma could be a personal and social factor to people since its occurrence is based on the discrepancy between how others charter one in society and one's actual identity (Yang et al., 2018). Stigma has a negative impact on people's physical and mental health. The affordances of social media could provide them many more opportunities to find people with similar interests and experiences and make communication easier (Andalibi, 2018). For example, direct messages and anonymity provide people with a safer environment to talk about more in-depth topics. And group discussions or hashtag conversations could build up a community for people interested in the same topic, which will be more convenient for sharing useful information and strengthening the sense of belonging. Also, because social media is highly embedded in people's daily life, scholars found that the use of social media might have an impact on people's offline social interaction. People who use social media to connect with their local community receive more support from neighbors than those who don't use such social media functions (Vitak & Ellison, 2013).

2.2.2 Social support on popular social media sites

Generally, social media's affordances provide people with an environment to interact with each other. But researchers also have found that the various platforms differ in how people exchange social support and its effects. Therefore, this section reviews social support on six of the most popular social media platforms: Facebook, Twitter, YouTube, Instagram, TikTok, and Snapchat. The review of these different social media platforms helps to better understand the affordances of social media, and how people can exchange social support on these platforms. The section that follows will delve more deeply into what is known specifically about providing social support on social media.

Facebook. Among the social media platforms, Facebook is one of the most popular sites. According to Statista (2020), Facebook has about 2.5 billion monthly active users for the fourth quarter of 2019 only. Besides a large number of active users, Facebook provides a unique platform to connect with friends and family. According to the Pew Research Center (Smith, 2014), users on Facebook have an average number of 338 friends and 200 friends as the median (midpoint). Social media, especially Facebook, have emphasized human beings' need to belong. Researchers found an increased need to belong, and popularity related to the increased use of Facebook among young people (Beyens et al., 2016). Facebook user might share their status with concerns about certain issues, which can inform their social network and possibly lead to supportive feedback (Ellison et al., 2011). Such updates will appear on all of this or her Facebook connection's home page in a format called News Feed.

Facebook has received wide attention for its affordance to exchange social support (Chen & Bello, 2017; Ellison et al., 2011; Gilmour et al., 2020; Zhang, 2017). Scholars previously found a positive relationship between the number of Facebook connections and perceived social

support, which also leads to better well-being (Nabi et al., 2013). Gilmour and colleagues (2020) conducted a systematic review and found a negative relationship between receiving social support on Facebook and depression, loneliness, and anxiety, which further confirmed Facebook's affordance for an effective exchange of quality social support. Zhang (2017) examined the relationship between seeking, receiving, and perceiving social support on Facebook. The results revealed that during stressful times, actively seeking social support on Facebook can positively correlate with higher levels of receiving and perceiving social support, which further increases people's life satisfaction.

Twitter. Twitter is an SNS mainly functioning for microblogging and has an estimated 322 million global users (Statista, 2023). As one of the leading social media sites, Twitter allows users to send short messages within 280 characters, which are also called tweets. Twitter users can use the hashtag function when sending tweets, which was designed to let people easily find and interact with the attached topics. Some of the most popular hashtags can be algorithmically identified as "trends, " allowing more Twitter users to see the topic. The affordance of Twitter allows people to communicate not just with people they know but also with strangers. Such communication can take place through hashtags, tweels, mentions, and replies (Alhabash & Ma, 2017). Scholars found that people use Twitter to share their daily thoughts and experiences.

Social support exchange on Twitter is often more famous for contributing to collective action and addressing larger issues (Hosterman et al., 2018). For example, during the "Me Too" movement, in which the phrase has been used to support survivors of sexual assault and abuse, a related hashtag in Twitter emerged in 2017 and made the "Me Too" movement phenomenal on Twitter. People shared their personal stories and received support from friends or other strangers' Twitter users (Shepherd et al., 2015).

YouTube. The video-sharing social media platform YouTube is also a unique and important platform for social support studies. Launched in 2005, YouTube is now the biggest online video platform worldwide. From the function perspective, YouTube has been showing an increasing format as a vlog, which refers to video blogging, an activity that creates a blog in video format. People choose vlogs to document their life and share thoughts with the audience, while people can comment below their videos to interact (Huh et al., 2014). What's more, not just the person who posted the vlog and received comments feels supported. Researchers found that people who watch a related health vlog would also perceive social support based on similar experiences, thoughts, and relatedness (Huh et al., 2014).

Researchers also found a phenomenon of people struggling with mental illness sharing their experiences through YouTube and becoming an emerging peer support system (Naslund et al., 2016). To be specific, Hale and colleagues (2018) identified vlogs as a coping strategy for cancer patients and how they positively related to receiving social support.

Instagram. As an image-based social media site, Instagram was created in 2010 and already reached 800 million monthly active users in 2017 and has now become one of the most popular social media sites in the United States. With the domain function for photo sharing and later added short video sharing function, Instagram provided two ways for people to capture and share life events with other people. One way of sharing is instantaneous posting, which would stay on the user's profile page. Instagram also allows instant sharing experiences in which people can update their status, and the information could disappear after 24 hours. Instagram users can also add a short description to their image or short video post, and such descriptions can take the form of hashtags which allow the post to be discovered by more people (LaMarre & Rice, 2017).

Photo and video have been showing increasing usage for social interactions based on their effectiveness in conveying feelings and reactions (Murray, 2015). Researchers found that Instagram posts that contain seeking social support information can attract significantly more comments (Andalibi et al., 2018). And when posting negative self-disclosures, the researcher indicated that many of the posts showed a direct interaction with the audience, for example, asking questions or referring to the audience as "you" (Andalibi et al., 2018). The finding shows how Instagram's affordances are more than documenting life but also social interactions.

TikTok. As a relatively new social media app (created in 2016), TikTok was originally built and launched in China and soon received a huge amount of attention and usage, with over 2 billion users globally as of 2020 (Scherr & Wang, 2021). Both YouTube and TikTok are video-based social media sites. The difference between these two is that while YouTube doesn't have a time-limited for video length, TikTok has a time limit for video posting on the site. In the beginning, the Maximum video length was just 15 seconds per video. The time limit expended to 3 minutes later and then to 10 minutes in 2022 (Hutchinson, 2022).

Based on statistics from the Pew Research Center (Auxier & Anderson, 2021), in the age group 18 to 29, 48 percent of people reported TikTok usage, representing the third most popular social media in this age group. Besides the entertainment of the short video sharing (Masciantonio et al., 2021), it is also common to see people self-disclosing on TikTok.

Snapchat. Snapchat is also a popular image- and video-based social media site. One of Snapchat's distinctive features is the use of ephemeral posting, in which people's post content will automatically disappear after 24 hours (Alhabash & Ma, 2017). Snapchat first launched this ephemeral posting feature and soon became very popular among users. Other social media platforms like Instagram and Facebook later also duplicated such design. People tend to share

their experience and express their emotions and thoughts by using the ephemeral function since knowing that the post will vanish soon decrease the burden of self-presentation (Bayer et al., 2016). Researchers found that compared with other social media platforms, Snapchat could be considered to have a lower capacity for enhancing the exchange or the perception of social support. And this is because people often communicate with their close relationships on Snapchat.

2.2.3 Social support provision on social media

Social media platforms provide people with an environment to exchange social support with others. With these social media platforms, because of their algorithm or provided features, one can reach more people to exchange social support, compared with offline communication. Yet, unlike professional caregiving facilities, seeking social support on social media doesn't guarantee people the receiving of it. The social support that people can receive on social media is based on the people who are willing to provide social support to others. Also, from the information support perspective, Vitak and Ellison's (2013) study found that some people have more trust in information provided by their social media friends than in information they find on search engines. This means that social support provision on social media could be an important resource for many people in need. Therefore, it is important to better understand social support provision on social media.

Social media platforms allow people to interact with their different social relationships at the same time, including strong ties, weak ties, and even strangers. Researchers who have examined this topic have often focused on how people's social support provision differs based on their relationships. Relationship closeness has been identified as one of the main factors related to people's providing social support behavior. Chang and colleagues (2018) research used semi-

structured interviews to examine what affects people's likelihood of responding to distressed posts on Facebook. Their results yielded that with people's close relationships, their responses to such posts were more likely to be direct and immediate. Yet which doesn't mean that relationship closeness is the only factor that would affect people's intention of providing support to others. Controlling the factor of relationship closeness, their study posited several other factors that can also influence people's likelihood of providing social support, such as the perceived seriousness of the post, history of reciprocity, and perceptions of other viewers (Chang et al., 2018). The finding of these factors sheds light on the fact that even though relationship closeness could be an important factor in people's providing social support intention, in general, people could be willing to provide social support to all kinds of their social relationships, and even to strangers. This further emphasizes the importance of better understanding social support provision on social media.

The social media environment enhances people's likelihood of interacting with their weak ties (Vitak & Ellison, 2013). Vitak and Ellison's study emphasized Facebook's affordance of social support provision from both strong and weak ties relationships. Their study conducted semi-structured interviews with 18 Facebook users about how they seek and provide social support on the site. Results of their study showed that one's strong ties could be more likely to initiate a more private conversation through other channels (e.g., phone calls and offline meetings) when seeing a social support request on Facebook. In addition, respondents noted that Facebook's ability to broadcast posts means that people can easily access stories shared by their weak ties, which increases their opportunity to support their weak ties. Their study showed that social media not only lowers the barriers for people to signal needs from others, especially their

weak ties, but also makes providing support to them easier (such as commenting on their Facebook status updates).

Some social media platforms (e.g., Facebook and Twitter) provide a feature for people to form groups based on their shared experiences or interests. Therefore, it could be easier for people to find similar others or individuals with whom they have shared experiences, such as former classmates. Such relationships might not be very close to the provider, but the interaction may be more meaningful because of shared experiences. The group function has also been widely studied for health support. Social media allow people with different health conditions to easily find and join their online support groups. And people often prefer such support groups and have positive perceptions towards the group and support providers in the group rather than traditional face-to-face support because of the perceived similarity (Wright, 2000). Support groups on social media could provide people with better support exchanging satisfaction also because of more effective communication. Wright (2000) provided an example that people with alcohol addiction society might stigmatize as people who cannot control their consumption behaviors and ignore their physiological and psychological struggle in the recovery process. Other health conditions like HIV, eating disorders, or mental illness also could experience stigma when communicating with people who don't have their disease.

One study found that within a health support group, there were different factors that related to social support provision. Kim and colleagues (2011) explored the factors that affected the amount of social support one provides by collecting data from 177 participants within the "living with breast cancer" online health support group. They found that two factors, age, and coping strategy, were related to social support provision. Specifically, the study found that younger patients were more likely to provide emotional support to others in the online group than older

patients. For coping strategies, people who adopted a higher level of positive reframing and a lower level of self-blame were more likely to be support providers in an online group. Kim and colleagues' study shed light on predictors of social support provision.

Some social media platforms allow people to post content anonymously, which in one way could protect people's privacy and make them feel more comfortable providing support on sensitive topics. Yet, on the other hand, an anonymous setting could potentially decrease the likelihood that other people would interact with the post, since relationship closeness is a factor that affects people's willingness to provide social support (Chang et al., 2018; Maner & Gailliot, 2007). To better understand how people react to anonymous sensitive posts, Andalibi and colleagues (2018) conducted a mixed methods content analysis of people's responses to others' sexual abuse-related self-disclosure posts on Reddit. As a text-based discussion web page, Reddit gives users the option to post and reply anonymously. Their research yielded several important findings, including anonymous comments were more likely to be provided on anonymous posts. This means that when people can use an anonymous account, they tend to provide support to posts that are also from anonymous accounts. Andalibi and colleagues concluded that the anonymous setting is beneficial not only for seeking social support but also for enabling support providers to share reciprocal intimate disclosures, which is beneficial for the social support exchange.

Chen and Bello's (2017) used an online survey to examine how providing social support on Facebook influences people's life satisfaction. Generally, providing social support on Facebook was found to increase stress and therefore reduce life satisfaction. Chen and Bello discussed possible reasons for this outcome, including the extra time, effort, and resources needed to provide support, and the emotional contagion caused by the negative mood of the support seeker.

However, there are also certain circumstances in which providing social support could increase people's life satisfaction. Their study found that the relationship between providing social support and life satisfaction was moderated by self-esteem. Specifically, they found that for people with low self-esteem, providing social support to others on Facebook significantly increased their life satisfaction, whereas for people with high self-esteem, providing social support did not influence their life satisfaction. Chen and Bello's research shows that even though providing social support could cause stress to some people, others could benefit from an increase in life satisfaction.

There are other researchers who continue to discuss the burdens that social support providers could face on social media. One of the recognizable burdens is social overload. The concept of social overload refers to people's negative perception of social media usage when they receive too many social support requests and feel that they are giving too much to others in their online social network (Chai et al., 2019; Maier et al., 2015). To further look at what would be the consequences of such social overload, Maier and colleagues used both interview and survey methods. The results of their study showed that social media users sometimes experience social overload (e.g., feeling the responsibility to respond to many messages, even with weak ties), but also that social overload brings psychological and behavioral consequences like a lower level of satisfaction, social media exhaustion, and an intention to reduce or stop using social media. Their research examined and yielded several factors that directly contributed to social overload, including the extent of social media usage, number of friends, types of relationships, and subjective social support norms.

The past research on providing social support on social media examined how providing social support may differ based on the relationship between the support seeker and support

provider, and explored the outcomes of providing social support. However, there is a lack of research that has examined people's own motivations for social support provision behavior, which could offer insight into potential burdens or benefits. Moreover, Mejova and Lu's (2022) research pointed out that, even though social media provided an environment for people to seek social support, from their sample tweets (4 million tweets), there was only 25 to 30 percent of self-disclosing posts under the loneliness topic received a reply. The need to promote more social support provisions on social media and better understand its mechanisms requires a study of people's motivation for providing social support on social media.

2.3 Motivations for providing social support

Motivation is one of the most important factors in encouraging people to conduct certain actions in their everyday life. Motivation refers to an affective factor that enables people to begin, continue, and end certain behaviors (Oh & Syn, 2014). Scholars posit that motivation indicates "the degree to which an individual wants and choose to engage in certain specific behaviors" (Mitchell, 1982, p. 82). Based on different situations or conditions, people's motivation could change dynamically. Motivation is an essential factor to examine because, without motivation, a person could easily discontinue an action or never want to start (Oh & Syn, 2014). And in the context of social support, while examining people's motivation to provide support to others, there are generally two kinds of motivation involved: altruistic motivation, which aims to benefit others, and egoistic motivation, which aims to benefit the self.

2.3.1 Altruistic motivation

Scholars suggest that even though people could be motivated by self-benefit to help others, under certain circumstances, people are capable of setting other people's benefit as an ultimate goal, which is also called altruism (Batson et al., 2009). Advocates of altruism do not

deny the domain of egoistic motivation but claim that based on egoism, people, to some degree, can have the ultimate goal of benefiting other people (Batson & Shaw, 1991).

Studies related to altruism and prosocial behaviors emphasize empathy as a major predicting factor for prosocial behaviors like providing social support (Batson et al., 2015; Carlson & Zaki, 2021; Cohen & Hoffner, 2012; Maner & Gailliot, 2007). For example, Maner and Gailliot's experimental research examined how empathy influences people's willingness to help in their different relationship contexts. Their research randomly assigned participants into one of two identical scenarios, in which the target in the scenario is in need for help. The difference between the two scenarios is that one is a close family member in need of help and the other is a stranger. Their study measured participants' willingness to provide help and emotions in both scenarios. Controlling egoistic factors, Maner and Gailliot's research finding shows that empathy is related to people's helping intention towards kin-member, though not strangers. Organizations and health practitioners also use empathy as a trigger to promote prosocial behaviors (Stock et al., 2008). Despite the importance of empathy in altruistic motivation, the concept of empathy has been given widely conflicting definitions (Smith, 2017). In recent years, a growing number of scholars support viewing empathy as a multidimensional concept that includes both cognitive and affective elements (Davis, 2004). And research shows evidence that both empathy's cognitive and affective facets are associated with prosocial behaviors (Davis, 2004; Devoldre et al., 2010). The construct of empathy is complex and has a diverse theoretical heritage (e.g., sociological, counseling, psychological), which makes the term empathy receive many debates about its definition. To solve the confusion, Batson (2009) concluded several distinct phenomena that all use the term empathy, including cognitive empathy; facial empathy;

feeling as others feel; aesthetic empathy; perspective taking; personal distress; and empathic concern.

Cognitive empathy refers to knowing other people's inner state, including their thoughts and feelings (Eslinger, 1998). Cognitive empathy has also been called empathic accuracy. Feeling the same emotion as another person represents another definition of empathy. Batson (2009) states that the observer does not need to experience the exact feelings but just a similar one. And also, the key is not only emotion matching but also catching. Projecting oneself in another's situation is a psychological state that has also been referred to as empathy. The term perspective-taking (or role-taking) represents one major approach to defining empathy, which refers to viewing empathy as a cognitive phenomenon, and when one person tries to understand another person's internal state or adopting the perspective of others (Devoldre et al., 2010). Perspective-taking is an effortful, controlled process that requires substantial cognitive resources and could be challenging to achieve. As a cognitive activity, different people's capacities and abilities in this subject vary (Ahn et al., 2013). Scholar found that some people are naturally more likely to feel concerned for others in need, which influences an individual's tendency to engage in perspective-taking (Davis, 2004). Another popular definition for empathy has also been called personal distress, which refers to the observer feeling unease and anxiety by witnessing the target's distress (Batson & Shaw, 1991). Personal distress is the state evoked by seeing other people suffering and does not involve feeling distressed for others. Other than the cognitive process, the other major approach views empathy as an affective reaction in the observer which results from observing others (Devoldre et al., 2010). From the affective reaction aspect, scholars posited that empathy occurs when the observer feels concerned, sympathetic, or

compassionate for the target (Batson & Shaw, 1991). This affective feeling has also been called empathic concern.

Empathy-altruism hypothesis. Batson and others developed and posited the empathy-altruism hypothesis from the original concept of empathy to further explain altruistic motivation and behaviors. The empathy-altruism hypothesis sheds light on how empathic concern could serve as a motivation for people's providing social support behaviors. Researchers indicate that there are three characteristics of empathic concern. First, the valence of empathic concern depends a lot on the person's perceived welfare of the person for whom empathy is felt. And only when there is a perception of need can emotion trigger altruistic motivation (Batson et al., 2011). Second, the empathic concern is an umbrella term that covers different types of other-oriented emotions, such as sorrow, pity, and sympathy. Finally, these other-oriented emotions all involve feeling for the other.

Research suggests that empathically aroused people help those in need and evoke altruistic motives to reduce one's suffering. Researchers found that empathic concern is associated with providing social support behavior from different aspects, including the quality of social support provided to the target (McAuliffe et al., 2018). Moreover, such altruistic motivation not only can trigger interpersonal helping intentions, but scholars also found that inducing empathy for a member of a stigmatized group can help improve general attitudes toward the whole group (Batson et al., 2002).

Belief in altruism. Another factor that scholars posited which could shape people's intentions or behaviors toward altruism is whether or not they believe in the concept of altruism. People's beliefs about altruism could affect their own motivation to act prosocially (Carlson & Zaki, 2021; Gebauer et al., 2015). To better understand this idea, Carlson and Zaki (2021)

conducted two experiments with prosocial scenarios and tested people's belief in altruism, tendency and willingness to act prosocially, and personal traits like empathy. Their study found that people who believe in altruism are more likely to help others and perceive others' prosocial behavior as more selfless. In contrast, those people who refuse the idea of altruistic motives should be more likely to think that people conduct good deeds to achieve other personal goals, such as praise or status. And such extrinsic motives were found to be negatively associated with people's engagement in prosocial actions (Batson et al., 2009). For people who tend to sway from believing altruism or not, the key factor that determines their engagement in prosocial behaviors is whether they count on emotion or reason to make prosocial decisions. Those who take a longer time to reflect on their motivation would be less likely to believe in altruistic motivations, whereas people with a greater tendency to feel empathy are more likely to believe in altruism and help others (Batson et al., 2011).

Even though empathy is a key component of altruism for people to want to help others, a lot of time, feeling empathy for others could be difficult and blocked by many factors (Segal, 2018). Based on human beings' sense of survival and radar to sense danger, people are likely to band together and form different groups for protection. While we can feel safe around ingroup people, human beings vary in many ways, such as race, gender, age, class, ethnicity, religion, and so on. When we perceive one as a sense of outgroup or otherness, it is natural that we can't easily empathize with each other (Segal, 2018).

There are also scholars who challenge altruistic motivation by stating that several of the factors that could elicit empathic concern could also potentially evoke a sense of relationship closeness or shared group identity (Aron et al., 1992; Smith et al., 1999). The study also found that people are more willing to help a kin member rather than strangers when they are in need,

which could potentially redirect the empathy-altruism hypothesis to an egoism perspective. And the prosocial behavior could have been driven by people's desire for relationship closeness rather than by empathic concern, in which the action is viewed as egoistically driven (Cialdini et al., 1997) because an increasing sense of oneness of action could be viewed in a psychological sense of helping oneself.

2.3.2 Egoistic motivation

Even though providing social support could bring the provider rewards and positive psychological feedback, prosocial behavior or social support is still challenging to promote based on the time and effort people need to conduct such behavior (Chai et al., 2019; Maier et al., 2015). In this case, why would people still help others? From a broad perspective, the majority of psychology believes that everything human beings do serves the ultimate goal of self-benefit, and this approach is also called egoism (Batson et al., 2009; Maner & Gailliot, 2007). To be more specific, Batson (1991) defined egoistic giving as motivated by people's desire to reduce their own personal distress or to receive rewards because of the giving behavior.

Negative affect. Theorists conclude that egoistic motivation means to be driven by perceived self-benefit (Lee et al., 2019). Based on egoism perspectives, people's motivation to help others can be triggered when they believe they can benefit from such behavior (Lee et al., 2019). Aligned with this point, researchers proposed an explanation called the negative-state relief model (NSR; Cialdini et al., 1987). The negative-state relief model posits that when people witness another's suffering, this could temporarily increase their feelings of distress or sadness, putting them into a negative affective state (Piferi & Lawler, 2006; Schaller & Cialdini, 1988). From this perspective, the motivation that encourages people to help or provide social support to others is to relieve their own personal negative feelings about the event. The negative state relief

model acknowledged that people would experience empathy when witnessing others suffering, but argued that when empathic individuals help others, it is not driven by an altruistic desire to relieve others' distress but rather an egoistic reason for personal mood management (Cialdini et al., 1997).

Because negative moods are not enjoyable for people, they should tend to put effort into changing back to their baseline mood. Cialdini and colleagues (1997) emphasized that heightened empathy could bring people increasing sadness. Scholars found that providing support to others makes the helpers feel better, which could reward them for their giving behavior. Therefore, from the egoistic motivation perspective, people could be providing social support to others to reduce their own negative emotions that are caused by other people's distress (Cialdini et al., 1997; Maner & Gailliot, 2007).

Cialdini and colleagues (1997) conducted two experiments to test this model. In their first experiment, they found that participants' empathy towards a victim increased their personal sadness, and when empathy and sadness were controlled separately, helping behavior was predicted only by the level of sadness and not empathy level. Their second experiment showed that a higher level of sadness was associated with a greater empathy level. However, people who thought prosocial behaviors could not improve their mood were less helpful than people who believed their mood could be improved by helping behaviors, despite their level of empathy towards the victim.

Scholars have applied the negative-state relief model to look at people's helping behaviors or motivations (Mitchell, 2000; O'Malley & Andrews, 1983). Some studies look at relief from specific negative emotions. For example, O'Malley and Andrew's study found that

people who feel guilty donated more blood and experienced a significantly reduced sense of guilt after the donation.

Need to belong. The need to belong theory proposed by Baumeister and Leary (1995) also supports the idea that one's behaviors toward others or the community could be perceived as personally beneficial. The need to belong theory indicates that human beings have a pervasive motivation to form and maintain positive and lasting interpersonal relationships with at least a minimum quantity. To satisfy this desire, one must frequently interact positively with other people. The need for a sense of belonging is universal across all cultures, even though people's expectations for the sense of belonging could vary across the strength. The concept of belongingness emphasizes people's need for interpersonal contact and how it leads to behavior, and a lack of belongingness could cause different ill effects on peoples' adjustment, health, and overall well-being. The desire to form and maintain social relationships could benefit people in multiple aspects, including survival and reproductive benefits (Baumeister & Leary, 1995). Motivation theorist Maslow (1943) also ranked belonging needs as one of the five major human need hierarchies. After people's basic needs (food, hunger, safety) are satisfied, people will start pursuing love and belongingness, before considering esteem and self-actualization.

The need to belong theory provides a theoretical framework from the egoism aspect for people's providing social support behavior, which presents the behavior as self-oriented. Baumeister and Leary (1995) stated that people's need to belong could shape their cognition, emotion, and even behavior. In one way, solidifying or forming social bonds could generally bring people positive emotions. On the other hand, when people sense that their social bonds are facing potential threats, it leads to negative effects. Because of the strong emotional responses that the need to belong could cause, people tend to devote time and effort to belongingness.

Theorists examined the need to belong as a motivational determinant of prosocial behavior (Cuadrado et al., 2015; Greenwood et al., 2013; Huang et al., 2016). For example, Huang and colleagues' study examined the relationship between loneliness and people's prosocial tendencies. Their results show that lonelier people generally would have less prosocial tendencies, except for one situation: helping others in public. This research examined the interesting relationship between loneliness and the situation where prosocial behaviors take place. The factor of loneliness has been identified to be related to people's need to belong. Vanhalst et al. (2015) further pointed out two conflicting perspectives on people's expected response when their need to belong fails to meet. One is called the loneliness-perpetuation perspective, which states that loneliness could reduce people's sensitivity to the potential benefits of events that might satisfy the need to belong. In the long run, this perspective suggests that loneliness harms people's social functioning. The other is called the loneliness-reduction perspective. From this perspective, when people's need to belong is not met, it creates a drive to actively seek to reduce frustration and further increase the possibility of satisfying the need to belong. Huang and colleagues discussed that when prosocial behaviors happen in private situations and witnesses are lacking, such prosocial behaviors cannot help people to connect further with others. Thus, it cannot satisfy people's need to belong; over time, their tendency to conduct this kind of prosocial behavior would be diminished. Their finding with prosocial behaviors in a private setting aligns with the loneliness-perpetuation perspectives. On the other hand, when prosocial behaviors take place in public settings and can be witnessed by others, people would be more motivated by their need to belong and conduct behaviors that could gain reputation and appreciation. Such findings align with the loneliness-reduction perspectives.

Scholars also examined how people's need for a sense of belonging could be influenced by the use of social media (Steers, 2016; Wang et al., 2018). Wang and colleagues' research examined the relationship between the need to belong and people's authentic self-presentation. The results show a positive predicting relationship between these two factors. This means that people with higher levels of need to belong would make more efforts to improve their social connections and honestly share more of their thoughts, feelings, and life events on social media. Moreover, FoMO has also been identified as one of the potential impacts one could have experienced due to the need to belong. Wang and colleague's research also found FoMO as a mediating factor for the need to belong and people's authentic self-presentation.

Baumeister and Leary (1995) stated that the need to belong has several different impacts on people's emotions, cognitions, and even behaviors. However, most studies focused on people's general prosocial behavior, and a lack of studies examined the relationship between people's need to belong and their social support provision on social media, which emphasized more about examining this topic. Some researchers have also discussed the relationship between the need to belong and altruism. Knowles's (2014) study highlighted that based on people's need to belong and the negative emotions one could face if their belongingness got threatened when people experience social rejections, it would shift their attention to others' perspectives, and think in a more altruistic mindset of perspective taking.

Impression management. People's lives could be greatly affected by others' impressions and evaluations of them (Leary et al., 2015; Leary & Kowalski, 1990). For example, when they are perceived to be friendly or unfriendly, this could lead to different results in their social and even occupational life. Therefore, scholars found that people would try to behave in certain ways to deliver a more desired impression to others to get better outcomes. Impression management is

a goal-oriented behavior of controlling information to affect the impressions formed by audiences (Schlenker, 2012). Impression management could be involved in shaping people's impression of a person, an object, or even an idea. When people are trying to manage others' impressions of themselves, such activity could also be called self-presentation.

Impression management is a common motivational approach employed by organizations that offer volunteer opportunities to enhance people's commitment (Dong & Bavik, 2023). Volunteerism, as a form of prosocial behavior, stands apart from spontaneous acts of assistance, being characterized as a planned, long-term, and discretionary form of prosocial conduct that benefits strangers and typically occurs within an organized framework (Finkelstein et al., 2005). In prosocial behavior motivation studies, scholars found that impression management is a critical motivation and could drive people to commit more to volunteering activities, since it can help people build and enhance their social image, status, and reputation (Dong & Bavik, 2023).

Impression management is considered to be one of the most important motivations to affect people's behavior (Dong & Bavik, 2023; Leary & Kowalski, 1990), and the influence also shows commonly in social media. Similar to offline situations, people's online audiences, such as Facebook friends or Instagram followers, can trigger people's evaluation of how they are perceived by the audience and their desire to deliver a more desired image to them. Scholars found that the need for impression management towards online audiences is very strong and could even affect how people behave offline (Lavertu et al., 2020). In the situation of exchanging social support on social media, previous studies found that when people are seeking social support, they perceive the impression management goal as more important when they expected greater publicity (Oh & LaRose, 2016). Although no studies have been located that have examined how impression management affects people's support-providing behavior on social

media, it is reasonable to assume that people would also consider how their provision of support on social media affects how others perceive them.

2.3.3 Outcome expectation

People's outcome expectations could also be important factors affecting their prosocial behaviors like social support provision. Scholars have found that outcome expectations are related to people's helping behaviors (Gan et al., 2016; Lin & Chang, 2018; Lv et al., 2022). Outcome expectations refer to a cognitive mechanism involving one's judgment of what is likely to be the consequence of performing a certain action (Lv et al., 2022). On social media sites, when people observe how others provide social support and the feedback they receive, this could lead to expectations of outcomes if they conduct the same behavior. Such observation could also be based on one's own experience.

Outcome expectations can be defined in different ways based on scenarios. Some scholars have viewed outcome expectations from egoistic or altruistic perspectives and examined the effects of these types of outcome expectations (Liu, 2018; Lv et al., 2022). Liu's (2018) study demonstrated considered people's outcome expectations towards charitable giving behavior from these two perspectives. The results showed that both altruistic and egoistic expectations led to charitable giving, and trust and commitment mediated such relationships. Lv and colleagues (2022) examined people's expectations of online information-sharing behavior, and divided outcome expectations into four categories, including information-seeking, emotion regulation, altruism and public engagement. In their study, sharing information based on altruism referred to the expectation of helping others, which clearly corresponds to altruistic outcome expectations, or benefits to others. Sharing information for emotion regulation (i.e., expecting increased well-

being and better coping) and for information seeking (i.e., expecting to receive information in return) both correspond to egoistic outcome expectations, or benefits to the self.

People's outcome expectations have also been found as an important factor that can lead to the formation of a habit (Hu et al., 2018; Verplanken & Wood, 2006). Habit formation could be influenced by outcome expectations based on the cognitive process of comparing expectations and the actual outcome of conducting the behavior. If the expectation is favorable and the outcome meets the expectation, people are more likely to repeat their behavior, thus leading to the formation of habitual behavior. Habit is also a motivational drive for people to conduct certain behaviors, including prosocial behaviors. Habit refers to mindsets and context-behavioral associations in memory which grow as people experience rewards for their specific behavior in a given context (Lv et al., 2022). It is a learned behavior driven by emotion, and a series of repeated actions, which, once they become habitual, require minimal mental effort and gradually become automatic. Therefore, when people establish a habit of providing social support, it would require minimal mental effort to continue doing so. After past behavior has been consistently performed and developed into a habit, this habit could drive people to conduct the behavior even when motivation is lacking (Hu et al., 2018).

Social support provision could be driven by altruistic or egoistic motivations, and the resulting altruistic or egoistic outcome expectation could be related to people's formation of habitual social support provision. From the altruistic perspective, scholars posit that a person who is more other-orientated and pays attention to people is likely to notice when others need help, and therefore is more likely to form habitual prosocial behavior (Baumsteiger, 2019). People with such altruistic characteristics are more likely to assign priority to other people's welfare, have empathy toward others' experiences, and have altruistic outcome expectations of

their prosocial behavior. On the other hand, people can also form habitual prosocial behaviors from an egoistic perspective. When people have egoistic outcome expectations of their prosocial behavior, the sense of reward could also drive people to continue performing the behavior, thus leading to the formation of habit.

2.4 Current Study

Based on the literature review and theoretical approaches, this research aims to better understand the mechanism of what drives people to provide social support on social media. Specifically, it looks at theories from both altruistic and egoistic perspectives. The altruistic perspective is supported by the empathy-altruism hypothesis, and the egoistic perspective is supported by the negative-state relief theory, the need to belong theory, and impression management. The goal of this study is to compare and better understand college students' motivation for providing social support on social media. This study conducted a quantitative cross-sectional survey with participants aged 18-29, to examine the influence of altruistic personal characteristics (empathic concern, perspective-taking), and egoistic personal characteristics (negative affect, the need to belong, impression management) to see how they might motivate people to provide social support differently. This study also examined whether belief in altruism moderated the influence of empathy on people's social support behavior. Finally, this study investigated people's altruistic and egoistic outcome expectations for providing support on social media, and whether these expectations mediated the relationship between altruistic and egoistic personal characteristics and provision of social support.

People's motivation to provide social support on social media is an important topic. Social media provides an environment for easy communication and the exchange of social support (Chai et al., 2019; Su & Chan, 2017), and without people providing social support, there

would be no exchange, only seeking social support behaviors. Therefore, social support provision on social media can be considered a foundation for the exchange of social support. However, as with any other prosocial behavior, social support provision could cause a burden to the support provider (Maier et al., 2015; Robertson et al., 1991). And currently, people's support-seeking posts on social media receive only a small number of replies (Mejova & Lu, 2022). As receiving social support can benefit people physically and psychologically (Inagaki & Orehek, 2017), it is important to examine further what leads people to provide social support on social media.

Previous studies examined individuals' motivation for prosocial behavior, primarily in offline contexts, with discussions centered around altruistic and egoistic viewpoints, leading to prolonged debates (Batson et al., 2002; Maner & Gailliot, 2007; Post, 2005). The altruistic perspective states that people provide social support to others based on a genuine desire to improve others' well-being (Batson & Shaw, 1991). Grounded in the empathy-altruism hypothesis, the altruistic perspective of people's motivation to help others emphasizes the role of empathy (Batson et al., 2011). The empathy-altruism hypothesis suggests that prosocial behavior results from empathy towards others, which can arouse altruistic motivation and a desire to improve others' welfare. Empathy is a complex concept, and scholars have identified different aspects of it, such as empathic concern, perspective taking, and personal distress. These different aspects could represent people's different states of mind, but all are related to prosocial behaviors. Other than empathy, whether people believe in the idea of altruism could also affect their altruistic motivation (Carlson & Zaki, 2021). Individuals who reject the concept of altruism tend to believe that people help others solely for personal benefit, and this belief has been found to have a negative correlation with involvement in helping behavior (Batson et al., 2009).

Conversely, people who have a stronger belief in altruism are more likely to conduct helping behavior.

On the other hand, the egoistic perspective states that people help others for their own self-benefit, such as receiving rewards or reducing their own distress (Piferi & Lawler, 2006). The egoistic perspective is also an important factor for people's motives to engage in prosocial behaviors, including social support provision on social media. The negative-state relief theory and the need to belong theory align with this egoistic perspective of support provision by pointing on human beings' basic needs. While the negative-state relief theory highlights the possibility of people helping others to obtain relief from their own negative feelings, the need to belong theory emphasizes people's need for a sense of belongingness and argues that this need is one of the factors that drives people to help others (Baumeister & Leary, 1995; Cialdini et al., 1987). Moreover, scholars found that impression management also aligns with the egoistic perspective for prosocial behavior (Dong & Bavik, 2023). Because one's life could be affected by others' impressions of them, people have a need to manage such impressions and to deliver a more desirable image to others, which can be achieved in part by conducting positive behaviors, including support provision.

Scholars also posited the difficulty of distinguishing altruistic from egoistic motivations for prosocial behaviors, which challenges the empathy-altruism hypothesis. Based on the complexity of human psychology, there can be circumstances in which people experience empathy towards others in need and also feel self-focused emotions like personal sadness (Maner & Gailliot, 2007). Therefore, social support behavior that seems to be based on altruistic motivations could also reflect the desire to enhance one's own emotional state. For example, to reduce their own negative emotions, people may provide social support to others. But in this

situation, it could be difficult to determine the extent to which empathy or the desire to reduce personal negative affect was driving their prosocial behavior.

Even though previous research investigated and found support for both sides of the egoism versus altruism motivation debate, there is still more that needs to be examined, especially in this new social media era. Comparing the two perspectives could show a better understanding of prosocial behavior motivation in general. Therefore, to further understand people's motivation for providing social support on social media, this study examines people's expected outcomes for such behavior, which may reflect altruistic and egoistic motivations more specifically. Outcome expectation is an important component of decision making and it is related to people's helping behavior. Scholars posited that when people are deciding whether or not to help others, other than thinking about urgency and their responsibility, people also consider the expectation of the outcome of such behavior, as well as the significance of the outcome (Chiu et al., 2006; Gan et al., 2016; Liu, 2018).

People's outcome expectations towards social support provision could also be related to the factor of reciprocity. Reciprocity refers to the belief that when helping others, the target or someone in the community will help him or her later (Oh & Syn, 2014). Reciprocity has been identified as the core element of altruistic actions (Liu, 2018). And based on the equity theory, people who feel that they give more than they receive could experience negative feelings such as unfairness, burden, and resentment. Therefore, regarding the situation of providing social support on social media, people could experience psychological distress when the amount of social support they give to others is significantly lower than the amount of social support they receive from others (Bowling et al., 2005). Based on the different settings, outcome expectations could be examined by different categories. And for the purposes of exploring more on comparing

people's altruistic and egoistic motivations toward social support provision, the related altruistic outcome expectation and egoistic outcome expectation are investigated.

Previous research tends to examine social support on only one specific social media platform (Chen & Bello, 2017; Naslund et al., 2016). However, in today's social media era, people rarely only use one platform but have a combined usage of several popular social media platforms. And all have the chance to exchange social support on these different platforms (Oh & Syn, 2014). The six popular social media sites, Facebook, Twitter, YouTube, Instagram, Snapchat, and TikTok, are all platforms that people use for self-disclosure and seeking social support. However, when asking people about their provision of social support, it would be difficult for them to recall which specific platform they were using. Therefore, in this study, social media is analyzed generally, without reference to specific platforms.

This research examines factors that predict the provision of social support on social media, using a convenience sample of college students. Specifically, this study measures people's social support behavior on social media, two aspects of empathy (empathic concern and perspective taking), negative affect, the need to belong, impression management, belief in altruism, and expected outcomes of providing social support on social media. People's social media usage and demographics were also measured to help with analyzing the results.

College students are an appropriate focus of this study for two main reasons. First, college students are in the age group that most frequently uses social media. According to research conducted by the Pew Research Center over the years 2005 to 2020 (Auxier & Anderson, 2021), even though other age groups are increasingly using social media, people aged 18 to 29 are still the leading age group for social media usage. In the year 2020, 84 percent of respondents in this age group reported using at least one social media site. And in that age group,

women reported a higher percentage of social media usage than do men. Secondly, college students show a higher need for social support exchange on social media. During the life stage of adolescence, peer groups increase in importance. Adolescents rely more on their peers than their parents, and their peer networks expand and become their primary source of social support (Bokhorst et al., 2010).

Overall, this study will first contribute to the theoretical debate of how altruistic and egoistic motivation drives people's social support provision on social media. Second, this study will differentiate egoistic and altruistic motivation and outcome expectations to see how these behavior-shaping factors can work differently. Finally, this study can provide practical implications on how to more effectively promote support provision on social media.

2.5 Hypotheses and Research Questions

It has been argued that what drives people to provide social support to others could be their egoistic or altruistic motivation (Batson et al., 2009; Baumeister & Leary, 1995; Maner & Gailliot, 2007). In previous studies, scholars emphasized the key factors that could represent either altruism (e.g., empathic concern, perspective thinking) or egoism (e.g., negative affect, need to belong, impression management) (Chai et al., 2019; Cialdini et al., 1987; Liu, 2018). While these factors have been found to be predictors of people's prosocial behavior, it is not clear how they could be involved in people's support provision on social media. Therefore, to further the understanding of prosocial behavior motivations, this study proposed the following research question and hypotheses.

2.5.1 Predictors on social support provision on social media

Scholars have emphasized empathy's importance in examining people's motivation for helping others. Previous research identified empathy as one of the major factors for prosocial

behavior (Carlson & Zaki, 2021; Maner & Gailliot, 2007). These studies posited that empathy is related to people's willingness to help others and has been used by organizations to help promote prosocial behaviors (Stock et al., 2008). Based on Batson's definitions of the term empathy, the construct of empathy is complex and can be seen from an affective perspective or cognitive perspective. Because previous research found empathy to be related to prosocial behavior from both affective and cognitive perspectives (Davis, 2004; Devoldre et al., 2010), this study examines the concept of empathy from both of these perspectives. From the affective perspective, this study chooses the empathic concern as a representation of empathy and uses the concept of perspective-taking to represent empathy from a cognitive perspective (Batson et al., 2015). Using the definition from both affective and cognitive perspectives can help to measure the concept of empathy to a fuller degree. Each of the empathy subscales is expected to be related to social support provision. Based on the relationship scholars found between empathy and prosocial behavior, it is expected that both affective and cognitive empathy will be positively related to people's social support provision on social media. Therefore, based on such assumptions, hypothesis 1 and 2 are proposed.

H1: Empathic concern will be positively related to social support provision on social media.

H2: Perspective-taking will be positively related to social support provision on social media.

From the egoistic perspective, three factors that can affect people's motivation for social support provision are the personal experience of negative affect, the need for belonging, and impression management (Baumeister & Leary, 1995; Cialdini et al., 1987; Leary & Kowalski, 1990). First, the negative-state relief model emphasizes people's motivation to improve their

mood when feeling sadness. Specifically, this model contends that the behavior of helping others can benefit people by making them feel better, and that the expectation of relief from sadness motivates people to help others (Cialdini et al., 1987). Therefore, in the context of social media, people who are feeling negative emotion could be motivated to provide support to others in order to feel better. Previous studies on prosocial behavior found that negative feeling does relate to helping behavior (Mitchell, 2000; O'Malley & Andrews, 1983). Yet a lack of research looked at how the negative affect model works with people's support provision on social media. Therefore, this study proposed hypothesis 3 to examine such a relationship.

H3: Negative affect will be positively related to social support provision on social media.

The need to belong theory states that people have a fundamental drive to establish positive and enduring social connections and regularly engage in positive interactions with others for a sense of belonging (Baumeister & Leary, 1995). In the context of social media-based support exchange, people could engage in support provision to pursue a sense of belonging. To further examine how the need to belong might drive people to support provision on social media, hypothesis 4 was proposed.

H4: The need to belong will be positively related to social support provision on social media.

Finally, scholars have found that impression management could also be an important factor that affects people's prosocial behavior (Leary & Kowalski, 1990). People's lives can be affected based on others' evaluations of them. So, when people are perceived to be friendly or have other kinds of positive images, it may have positive effects on their lives, such as building more relationships or gaining more social approval. On the other hand, when people are evaluated to be unfriendly or have other kinds of negative social images, it can have negative

effects on their lives, such as decreased social interactions and loneliness. Therefore, it is a natural response that people would change their behaviors in some ways to try to deliver a more desirable impression to others (Dong & Bavik, 2023; Leary et al., 2015; Schlenker, 2012). As a kind of motivation that is triggered by the desire to receive better responses from others, impression management could be considered an egoistic motivation. Previous research found impression management to be a positive predictor of people's different kinds of prosocial behaviors, such as volunteering behaviors (Dong & Bavik, 2023) and helping others (Schlenker, 2012). Yet, no studies could be located that examined how impression management is involved in people's support provision on social media. Therefore, this study proposed the hypothesis below to examine that relationship.

H5: Impression management will be positively related to social support provision on social media.

2.5.2 Predictors of social support provision offline

Motivational factors could be found related to people's support provision on social media or in offline scenarios. Even though there are more and more studies examining motivational factors for people's support provision on social media (Baines et al., 2022; Chang et al., 2018; Chen & Bello, 2017; Rosen et al., 2022), the majority of work on prosocial motivations focuses on offline scenarios and examines actions such as charitable behaviors, helping others, and organ donation (e.g., Cohen & Hoffner, 2012; Cuadrado et al., 2015; Paulin et al., 2014). The current study focuses on understanding what factors motivate people to provide social support on social media, and comparing the results for social media with the same analysis for support provision offline can potentially provide insights into what is unique about the social media context.

Moreover, research comparing how the same factors work for support provision on social media and offline is sparse. Thus, this study proposed the following research questions.

RQ1: Will there be differences in altruistic motivations' predicting support provision on social media and support provision offline?

RQ2: Will there be differences in egoistic motivations' predicting support provision on social media and support provision offline?

2.5.3 The role of belief in altruism

In addition to directly predicting how altruistic traits should be related to social support provision on social media, this study examines a potential moderator of that relationship: people's belief in altruism (Carlson & Zaki, 2021). Specifically, the strength of the relationship between altruistic traits (two types of empathy) and social support provision may vary based on people's belief in altruism. Carlson and Zaki's research emphasized how people might differ in whether or not they believe in the idea of altruism, and such a difference would affect their willingness to help others. People who tend to believe more in the concept of altruism are more likely to act prosocially. Moreover, belief in altruism could enhance the influence of altruistic traits on prosocial behavior. Therefore, belief in altruism could serve as a moderator of the relationship between altruistic traits and support provision on social media.

H6: Belief in altruism will moderate the positive relationship between empathic concern and social support provision on social media, such that the relationship will be stronger among people who believe more in altruism.

H7: Belief in altruism will moderate the positive relationship between perspective-taking and social support provision on social media, such that the relationship will be stronger among people who believe more in altruism.

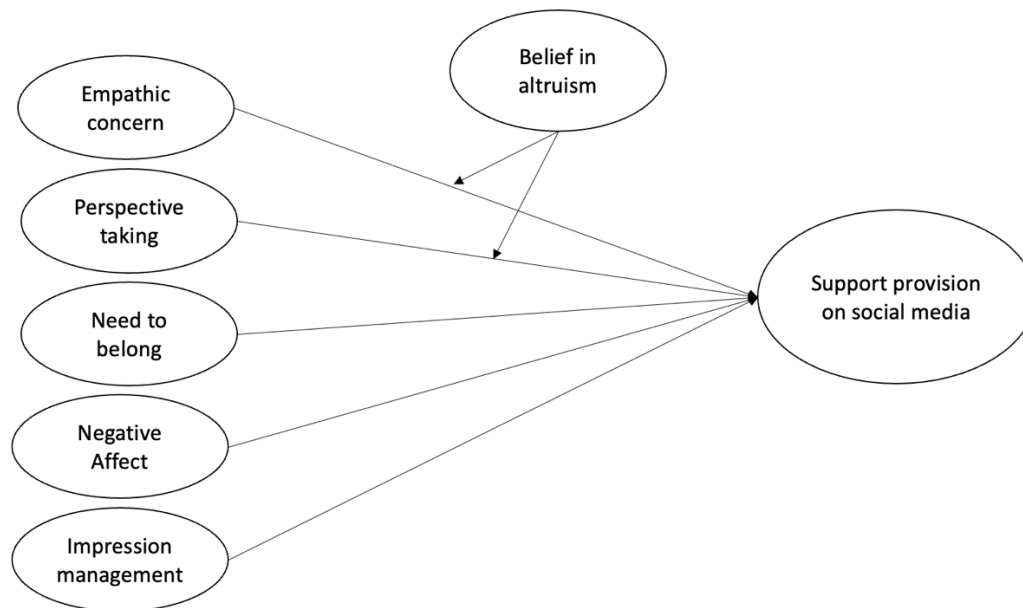


Figure 2.1: Conceptual Diagram for H1 to H7.

2.5.4 Outcome expectations as mediators

People's expectation of what would happen after they provide social support to others on social media could also affect their motivation to conduct such behaviors (Chiu et al., 2006; Gan et al., 2016). Previous research found outcome expectations to be positively related to people's helping and sharing behavior. Moreover, scholars have investigated people's outcome expectations in different contexts, such as altruism outcome expectations, information seeking outcome expectations, emotion regulation outcome expectations, and public engagement outcome expectations (Liu, 2018; Lv et al., 2022). Thus, given the focus of the current study, two perspectives on outcome expectations for providing support on social media were proposed, altruistic outcome expectations and egoistic outcome expectations. First, a new scale to measure these two types of outcome expectations was developed. Then the study proposed and tested a model that included the altruistic and egoistic traits as independent variables, the two types of

outcome expectations as mediators, and support provision on social media as the dependent variable. Specifically, the study first proposed two hypotheses (H8 and H9) predicting positive relationships between altruistic and egoistic motivational traits and outcome expectations. Then, this study proposed two hypotheses (H10 and H11) predicting a positive relationship between the two outcome expectations and support provision on social media. Finally, to investigate the mechanism by which altruistic and egoistic motivational traits influence support provision on social media, this study proposed two research questions regarding whether outcome expectations serve as mediators.

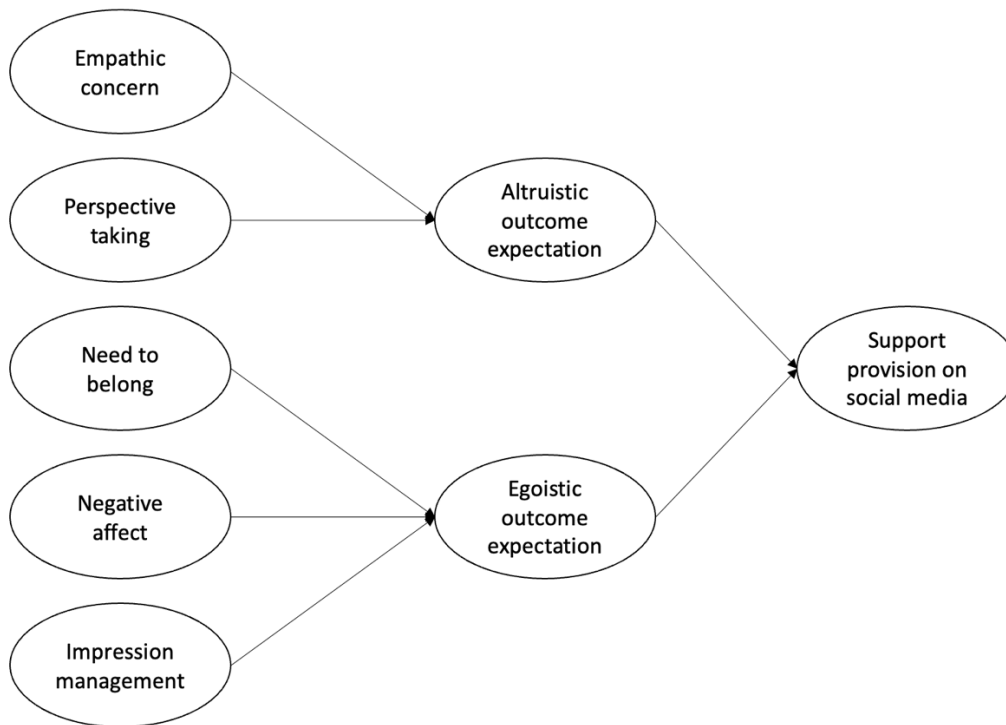


Figure 2.2: Conceptual Diagram for H8-H11.

H8: altruistic traits [empathic concern (H8a), perspective taking (H8b)] will be positively related to altruistic outcome expectation.

H9: Egoistic traits [negative affect (H9a), need to belong (H9b), impression management (H9c)] will be positively related to egoistic outcome expectation.

H10: Egoistic outcome expectations will be positively related to social support provision on social media.

H11: Altruistic outcome expectations will be positively related to social support provision on social media.

RQ3: Will altruistic outcome expectations mediate the relationships between altruistic traits – empathic concern (RQ3a), perspective taking (RQ3b) – and support provision on social media?

RQ4: Will egoistic outcome expectations mediate the relationships between egoistic traits – negative affect (RQ4a), the need to belong (RQ4b), impression management (RQ4c) – and support provision on social media?

3 METHODS

3.1 Research Design

This cross-sectional survey aims to investigate people's motivation for the provision of social support on social media in general (e.g., Facebook, YouTube, Twitter, TikTok, Instagram, Snapchat). An online survey was sent to college students at Georgia State University, and the questionnaire measured participants' thoughts on providing social support and demographics.

3.2 Procedure

The online survey was created through Qualtrics (www.qualtrics.com) from April 17th, 2023, to April 24th, 2023. The study measures, recruiting message, and informed consent form are listed in Appendices A, B, and C. Before contacting potential participants, this study was first reviewed and approved by Georgia State University's Institutional Review Board (IRB). After passing the IRB, the recruiting message (Appendix B) was shared with class instructors, and the instructors invited their students to participate with a link to the survey in the recruiting message. Participants were told that the study focuses on people's perspectives on social support provision on social media. A consent form (Appendix C) was provided to the participants with options to agree or decline to participate in the survey. Once people consent, they were taken to the survey and self-report their experiences and thoughts about social support on social media.

3.3 Participants

Participants for this research were from a large urban university in the United States (Georgia State University). Students received extra credit toward a class for finishing the survey. This research collected 517 surveys in total, yet 99 were dropped from the study. Among the surveys that were dropped, 61 were because of failure to answer both attention check questions. In addition, this study focuses on college students who are typically aged 18 to 29 years old.

Therefore, 19 participants were dropped because they were 30 years old or older or did not report their age. Moreover, four surveys were deleted because they were duplicates, and only the first submission for each participant was kept for data analysis. One survey was dropped for reporting not having any social media accounts, and one survey was dropped for reporting for never checking any social media platforms. Finally, 13 surveys were deleted because the respondent took less than 5 minutes to finish the survey. After these 99 surveys were dropped, a total of 418 completed surveys were kept for further analysis.

In the final data sample, respondents reported that their ages ranged from 18 to 29 years ($M=19.57$, $SD=1.57$). The final sample included 275 females (65.8%), 135 males (32.3%), six non-binary participants (1.4%), one transgender male (.2%), and one who preferred not to say (.2%). Among the respondents, 43.5% identified as Black/African American ($n=182$), 20.8% as Asian/Pacific Islander ($n=87$), 13.9% as White/Caucasian ($n=58$), 9.1% as Hispanic/Latino ($n=38$), 2.2% as other ($n=9$), 9.6% as multiracial ($n=40$), and 1% did not specify their race/ethnicity ($n=4$). Moreover, 48.1% of participants reported their year in college as Freshman ($n=201$), 33.3% as Sophomore ($n=139$), 13.4% as Junior ($n=56$), and 5.3% as Senior ($n=22$). All respondents ($n=418$, 100%) answered their major in college, with more than 80 different majors reported. Finally, all respondents in the final data reported using social media.

3.4 Measures

Providing social support on social media. Participants' behavior in providing social support was measured by a modified shortened version of the Inventory of Socially Supportive Behavior (ISSB) to see their general providing support behavior (Barrera et al., 1981; Chen & Bello, 2017). This study used the shortened version of the original scale because some items of the scale focus more on face-to-face social support, while this study only assesses people's

providing social support behavior online. This measurement contains eight items rated on a five-point scale (1=not at all; 2=once or twice; 3= about once a week; 4=several times a week; 5=about every day). It asks participants to indicate how often during the last month they have engaged in behaviors such as: "Suggested some actions your friends should take via social media" and "Let your friends know that you will always be around if he/she needs assistance via social media." The eight items were averaged ($M= 2.70$, $SD=.97$). Scale reliability was very high ($\alpha=.92$).

Providing social support offline. For the purpose of this study, it is also important to see if people providing social support behavior online and offline are aligned. To fulfill this goal, this study adapted the same scale for measuring people's support provision on social media (shortened version of ISSB, Barrera et al., 1981) without the focus on online interactions. For example: "Told your friends that you feel very close to him/her." The eight items were averaged ($M=3.47$, $SD=.91$). Scale reliability was also very high ($\alpha=.93$).

Empathy. The Interpersonal Reactivity Index (IRI, Davis, 1980) is a self-report measure that includes 28 items in total for four subscales. Two of the subscales were used in this study to measure empathic concern and perspective-taking. These measurements ask participants to rate on a 5-point scale for how well these statements describe them, with one indicating does not describe me well and five referring to describes very well. The scale to measure empathic concern contains seven items: "When I see someone being taken advantage of, I feel kind of protective toward them," and "I am often quite touched by things that I see happen." After reversed coding, the seven items for empathic concern were averaged ($M= 3.79$, $SD=.67$). Scale reliability was acceptable ($\alpha=.70$).

The scale to measure perspective-taking includes seven items, for example, "I try to look at everybody's side of a disagreement before I make a decision" and "Before criticizing somebody, I try to imagine how I would feel if I were in their place." After reversed coding, the seven items for perspective-taking were averaged. ($M= 3.62$, $SD=.70$). Scale reliability was acceptable ($\alpha=.71$).

Negative affect. Negative affect was measured using the scale of positive and negative experiences (SPANE, Diener et al., 2010). This scale asked participants how frequently they had felt certain negative or positive emotions in the past four weeks. The positive measurements contained six positive emotions (i.e., happy, good, positive, pleasant, contented, joyful), while the negative measurements contained six negative emotions (i.e., negative, unpleasant, sad, afraid, angry, bad). Participants rated these measurements based on a five-point scale (1= Very rarely or never, 5= very often or always). Because people have partial independence for the two types of emotions, this scale scored positive and negative emotions separately (Diener et al., 2010). Therefore, each summed score (positive or negative) could range from 6 to 30. Means and standard deviations were calculated for positive emotions ($M= 21.29$, $SD=4.43$) and negative emotions ($M=16.16$, $SD=4.39$). Scale reliabilities were high for both positive ($\alpha=.87$) and negative ($\alpha=.80$).

The scale of positive and negative experience (SPANE) provides information about participants' affect balance by subtracting negative emotion scores from positive emotion scores. The results of people's emotional affect balance could range from -24 to 24. Positive scores mean the participant experienced more positive emotions for the past four weeks, and negative scores indicate a more negative affect balance over the past four weeks ($M=5.13$, $SD =7.40$).

The need to belong. Participants' feelings of a need to belong were measured by the Need to Belong Scale (NTBS; Leary et al., 2013). This 10-item measurement asks participants to rate on a 5-point scale to assess their motivation to be accepted by others and avoid being shunned (1=*not at all*; 2=*slightly*; 3=*moderately*; 4=*very*; 5 = *extremely*). For example: "If other people don't seem to accept me, I don't let it bother me" (reverse coded) and "I try hard not to do things that will make other people avoid or reject me." After reverse coding, the ten items were averaged ($M= 2.94$, $SD=.71$). The scale was reliable ($\alpha=.76$).

Impression management. This study used two of the five styles on the impression management styles scale (IMS, Leary et al., 2015). IMS was designed to measure people's impression management behavior based on five different kinds of self-presentation styles (Jones & Pittman, 1982). Among the five kinds of self-presentation styles, two are more related to social support provision and motivations, including self-promotion (which refers to the behavior of trying to be viewed as competent). Example questions in the survey include "Talk proudly about your experience or education" and "Make people aware of your accomplishments." Also, ingratiation (trying to be viewed as friendly and nice). For example, "Compliment your colleagues so they will see you as likable." "Take an interest in your colleagues' personal lives to show them that you are friendly." These items were rated on a 5-point scale (1=never behave this way, 5= often behave this way.) The eight items were averaged ($M= 3.06$, $SD=.82$). Scale reliability was high ($\alpha=.86$).

Expected outcomes of providing social support on social media. Using items adapted from Hoffner (2017) and Liu (2018), this study measured people's outcome expectations from altruistic and egoistic perspectives. The items were rated on a five-point Likert scale. Initially, there were five items that addressed altruistic outcome expectations and seven items that

addressed egoistic outcome expectations. A principal components analysis (with Varimax rotation) confirmed the two factors but indicated that two egoistic items needed to be dropped due to high cross-loadings. Thus, there are five items on each of the two subscales used in this study. Details of the principal components analyses are reported in the Results section.

From the altruistic perspective, the questions focused on people's outcome expectations towards how other people will feel. For example: "I provide social support to others on social media because I expect that the other person will feel better." The five items measuring outcomes related to others were averaged ($M=4.04$, $SD=.72$), with high reliability ($\alpha=.86$). From the egoistic perspective, the questions focused on people's outcome expectation towards how themselves might feel, like "I provide social support to others on social media because I will feel more connected to others." The five items for self also had a high reliability ($\alpha=.86$), and the items were averaged ($M=2.60$, $SD=.95$).

Belief in altruism. This study measured participants' belief in altruism using Bergner and Ramon's (2013) belief in altruism scale. Based on a five-point scale (1=strongly disagree, 5=strongly agree), this scale contains eleven items. For example: "Sometimes, people will help other people and not want anything in return" and "People don't always consider their own needs when helping another." The eleven items were averaged ($M= 3.31$, $SD=.49$). Scale reliability was near the acceptable level of .70 ($\alpha=.69$).

Social media usage. Participants were first asked for their general social media usage on a single five-point scale (1=never, 5=always, $M=4.13$, $SD=.90$). Participants who reported not using any social media or did not answer this question were removed from the final sample.

Participants' social media usage (i.e., Facebook, Instagram, Twitter, YouTube, Snapchat, and TikTok) was then measured using items modified from Rosen et al. (2013). Items were rated

on a five-point scale (1=never, 5=always). Participants were first asked to select all social media platforms from the list for which they had an account. Results were as follows: Facebook account (39.7%, N=166), Twitter account (62.7%, N=262), Instagram account (94.3%, N= 394), YouTube account (85.2%, N=356), TikTok account (80.9%, N=338), and Snapchat account (67.5%, N=282). Then, they responded to an item that asked, “About how often do you check on the following social media platforms?” Ratings were recorded only for platforms that respondents reported using. The items for each platform were: Facebook: $M=2.32$, $SD=1.17$; Twitter: $M=2.95$, $SD=1.26$; Instagram: $M=4.04$, $SD=1.00$; YouTube: $M=3.51$, $SD=1.16$; TikTok: $M= 4.27$, $SD=.98$; Snapchat: $M=3.14$, $SD=1.17$.

This study also asked participants about their estimated frequency of providing social support on Facebook, Instagram, Twitter, YouTube, Snapchat, and TikTok. The items asked the question: “About how often do you provide social support to others on the following social media platforms?” These items were rated on a five-point scale (1=never, 5=always). Means and standard deviations for people’s social support provision on each platform were (based on participants who also reported having that specific social media account): Facebook ($M=1.84$, $SD=1.10$), Instagram ($M=3.26$, $SD=1.19$), Twitter ($M=1.91$, $SD=1.16$), YouTube ($M=1.80$, $SD=1.13$), Snapchat ($M=2.65$, $SD=1.30$), and TikTok ($M=2.55$, $SD=1.35$).

Background characteristics. This survey also asked participants questions about their sociodemographic characteristics (e.g., age, gender, ethnicity, college major). Some of the background characteristic measures were used as control variables.

Additional Measures. This study also measured two additional variables for potential use in a future study. The additional measures include the communal concerns scale by Park et al. (2011) and the pleasure and pressure-based prosocial motivation scale by Gebauer et al. (2008).

4 RESULTS

4.1 Overview of Analyses

This study performed several types of statistical analysis to describe the data, test the hypotheses, and answer the research questions, including descriptive statistics, zero-order correlations, hierarchical multiple regressions, and structural equation modeling.

The analysis for this study contains five parts. First, preliminary analyses were conducted for descriptive information, including zero-order correlations were calculated. Second, to examine predictors of social support provision on social media (H1, H2, H3, H4, H5), this study conducted a hierarchical regression. Demographic information (e.g., gender, overall social media usage) was entered in the first block as control variables. In the second block, altruistic trait variables empathic concern and perspective taking were entered. Finally, in the third block, egoistic trait variables need to belong, and negative affect and impression management were entered as predictor variables. Third, to explore answers for RQ1 and RQ2, which compare altruistic (empathic concern, perspective taking) and egoistic (need to belong, impression management, affect balance) traits' predicting strength between on social media and offline, this study conducted an identical hierarchical regression analysis above with people's support provision offline as dependent variable. Fourth, this study investigated how belief in altruism might be able to affect the predicting strength of the two altruistic traits: empathic concern (H6) and perspective taking (H7) by examining it through regression analysis via interaction. Finally, to investigate the mediator role of altruistic and egoistic outcome expectation, this study employs structural equation modeling (SEM) to test the model which contains two routes: the relationship between altruistic trait and support provision on social media through altruistic outcome

expectation (H8, H11, RQ3), and the relationship between egoistic trait and support provision through egoistic outcome expectation (H9, H10, RQ4).

4.2 Descriptive Analyses

The descriptive analyses first show details about respondents' social media usage. To collect the answers of people's social media activities, this study asked participants three related questions. First, to measure their overall social media activity, this study asked participants to indicate how often they use any form of social media generally (1= never, 5= always; $M=4.13$, $SD=.90$). All participants who reported never using any social media were excluded from the analysis.

Then, to look at how participants' social media usage may differ by platform, this study asked participants the social media platforms where they had an account (Facebook, Twitter, Instagram, YouTube, TikTok, Snapchat). The results show that 166 participants had a Facebook account (39.7%), 262 participants had a Twitter account (62.7%), 394 participants had an Instagram account (94.3%), 356 of them had a YouTube account (85.2%), 338 of them had a TikTok account (80.9%), and 282 of them had a Snapchat account (67.5%).

To see how frequently participants checked the social media platforms where they had accounts, this study then asked the question: "About how often do you check the following social media platforms (Facebook, Twitter, Instagram, YouTube, TikTok, Snapchat). Table 4.1 shows the percentage of respondents who reported ever checking each platform. From the results, it shows that the platform that most people reported checked was Instagram with 92.1% ($n=385$), followed by YouTube (88.5%), TikTok (81.8%), Snapchat (67.2%), Twitter (61.5%), and Facebook (36.8%).

Table 4.1: Social Media Checking Frequency

	n (percentage) who report checking the platform	<i>M(SD)</i>
Facebook	120(28.7%)	2.32(1.17)
Twitter	232(55.5%)	2.95(1.26)
Instagram	387(92.6%)	4.04(1.00)
YouTube	339(81.1%)	3.51(1.16)
TikTok	331(79.2%)	4.27(.98)
Snapchat	261(62.4%)	3.14(1.17)

Note. Social media activities used a scale that ranged from 1 to 5 (1=never, 5=always). The total N was 418. The first column shows the number and percentage (out of the total N) that had used each platform at all. The second column shows means and SDs of checking frequency for those who used each platform.

Finally, Table 4.2 shows how people use social media for support provision. Data were collected by asking how often you provide social support to others on the following platform. The results from the descriptive analysis show that 84.7% (n=354) of respondents would provide social support to others on Instagram, followed by TikTok (55.3%), Snapchat (50.8%), YouTube (36.4%), Twitter (29.4%) and Facebook the least (18.1%).

Table 4.2: Social Media Use for Social Support Provision

	n (percentage) who provided social support on each platform	<i>M(SD)</i>
Facebook	76(18.1%)	1.84(1.10)
Twitter	123(29.4%)	1.91(1.16)
Instagram	354(84.7%)	3.26(1.19)
YouTube	152(36.4%)	1.80(1.13)
TikTok	231(55.3%)	2.55(1.35)
Snapchat	211(50.5%)	2.65(1.30)

Note. Social media activities used a scale that ranged from 1 to 5 (1=never, 5=always). The total N was 418. The first column shows the number and percentage (out of the total N) that had ever provided social support on each platform. The second column shows the means and SDs for support provision among those who used each platform.

Means and standard deviations for key variables were calculated and reported in Table 4.3. The result shows that respondents reported a high level of support provision offline, altruistic outcome expectation, empathic concern and perspective-taking, and overall social media usage. Respondents also reported a moderate level of support provision on social media, egoistic outcome expectation, need to belong, impression management, and belief in altruism. Because the mean for affect balance could range from -24 to +24 ($M=5.13$) shows that the respondents' affect balance was slightly on the positive side.

Table 4.3: Means and Standard Deviations of Key Study Variables

	<i>M</i>	<i>SD</i>	Cronbach's α
Support Provision on social media (8 items)	2.70	.97	.92
Support Provision Offline (8 items)	3.47	.91	.93
Empathic Concern (7 items)	3.79	.67	.70
Perspective Taking (7 items)	3.62	.70	.71
Affect Balance	5.13	7.40	--
Positive affect (6 items)	21.29	16.16	.87
Negative affect (6 items)	4.43	4.39	.80
Need to Belong (10 items)	2.94	.71	.76
Impression management (8 items)	3.06	.82	.86
Altruistic Outcome Expectation (5 items)	4.04	.72	.86
Egoistic Outcome Expectation (5 items)	2.60	.95	.86
Belief in Altruism (11 items)	3.31	.49	.69
Overall Social Media Usage (1 item)	4.13	.90	---

Note. All ratings were made on scales that ranged from 1 to 5. Negative affect was the sum of the six negative emotion measurements. Positive affect was the sum of the six positive emotion measurements. Both of their scores could range from 6 to 30. Affect balance is the negative emotion scores subtracted from positive emotion scores, which could range from -24 to 24.

To investigate the relationships between variables, this study conducted Pearson's correlation analyses. Table 4.4 reports zero-order correlations among key variables. As the results show, from an altruistic perspective (two variables included, empathic concern and perspective taking), perspective taking showed a positive correlation with support provision on social media, whereas empathic concern did not. Empathic concern was positively related to the

Table 4.4: Zero-order Correlation among Key Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Support provision on social media	-												
2. Support provision offline	.44**	-											
3. Empathic concern	.08	.21**	-										
4. Perspective taking	.10*	.27**	.44**	-									
5. Affect balance	-.02	.03	-.02	.08	-								
6. Positive affect	.08	.12*	.09	.12*	.84**	-							
7. Negative affect	.11*	.06	.11*	-.01	-.84**	-.41**	-						
8. Need to belong	.17**	.08	.16**	-.02	-.20**	-.10*	.24**	-					
9. Impression management	.27**	.31**	.06	.04	.11*	.19**	.01	.38**	-				
10. Altruistic outcome expectation	.27**	.21**	.38**	.21**	.04	.12*	.04	.24**	.15**	-			
11. Egoistic outcome expectation	.14**	-.03	-.15**	-.12*	-.02	.01	.03	.26**	.28**	.11*	-		
12. Belief in altruism	-.01	.12*	.33**	.18**	.05	.13*	.04	.03	-.04	.19**	-.25**	-	
13. Gender	.01	.19**	.35**	.16**	-.11*	-.00	.18**	.60	.11*	.22**	-.09	.07	-
14. Social media usage	.29**	.19**	.14**	.091	-.09	-.04	.11*	.24**	.23**	.23**	.05	.05	.23**

Note. * $p < .05$, ** $p < .01$. Gender (0=male, 1=female).

need to belong, and perspective taking was not. Empathic concern was positively related to negative affect (but not positive affect), whereas perspective taking was positively related to positive affect (but not negative affect). Both empathic concern and perspective taking were found to be negatively correlated with egoistic outcome expectations and positively related with support provision offline, altruistic outcome expectations, and belief in altruism.

From the egoistic perspective, which includes three factors (e.g., need to belong, affect balance, impression management), the need to belong was positively related to social support provision on social media but not offline. Need to belong was negatively correlated with affect balance. Moreover, the greater the need to belong, the higher scores were reported for impression management, altruistic outcome expectations, and egoistic outcome expectations.

Outcome expectations were separated into altruistic outcome expectations and egoistic outcome expectations. The results show that both kinds of outcome expectations were positively related to social support provision on social media and impression management, yet only altruistic outcome expectations was related to support provision offline. Altruistic outcome expectations was positively related to both altruistic traits (empathic concern, perspective taking), and also positively related to the need to belong. Egoistic outcome expectations was negatively related to the two altruistic traits, and positively related to the need to belong.

As for the background factors, gender was found to be related to participants' social support provision offline but not on social media. Moreover, compared to males, females reported higher levels of empathic concern and perspective taking, more negative affect balance, impression management and altruistic outcome expectation, and overall social media usage. Overall social media usage was found to be positively related to most of the other key variables

in this study, except perspective taking, affect balance, egoistic outcome expectation, and belief in altruism.

4.3 Predictors of social support provision on social media

First, H1, H2, H3, H4, and H5 were examined using hierarchical linear regression in SPSS. To be more specific, these five hypotheses predicted that empathic concern, perspective taking, negative affect, the need to belong, and impression management would all be positively related to social support provision on social media.

A regression analysis predicting support provision on social media was conducted (as shown in Table 4.5). Background variables (gender, overall social media usage) were entered in the first block. Then, altruistic traits and egoistic traits were entered in two different blocks. Altruistic traits were entered in the second block of the hierarchical regression analysis, including empathic concern and perspective taking. Finally, egoistic traits were entered in the third block, including affect balance (an indicator of negative affect), the need to belong, and impression management. Regression assumptions related to multicollinearity and heteroscedasticity were tested using collinearity diagnostics, plotting residuals, and Breusch-Pagan Test. Results show that variance inflation factors were all above 1 and below 10, residuals plotted in a random spread, and the Breusch-Pagan test statistic was 10.173 with 7 degrees of freedom. The associated p-value was 0.179, which indicates that the regression assumption have been met, since the p value was above .05.

First, for the background variables, participants' overall social media usage was found to be a significant predictor of providing social support behavior on social media, while gender was not. Such results show that the more overall social media people tended to use, the more likely they were to provide social support to others on social media.

Table 4.5: Hierarchical Regression Analysis Predicting Support Provision on Social Media

	B	SE B	β	ΔR^2
1. Background Characteristics				.090***
Gender	-1.04	.102	-.050	
Overall social media usage	.338	.054	.308***	
2. Altruistic traits				.009
Empathic concern	.055	.082	.038	
Perspective taking	.109	.074	.078	
3. Egoistic traits				.046***
Affect Balance	-.003	.007	-.026	
Need to belong	.047	.075	.034	
Impression management	.247	.063	.206***	

Note. Gender was coded as 0=male, 1= female. * $p < .05$, ** $p < .01$, *** $p < .001$. Adjusted R^2 for full model=.130, $F(7, 394)=9.562$, $p < .001$.

To better understand the role of negative affect in support provision on social media, as addressed in H3, the same regression analysis was rerun, but with the separate measures of negative affect and positive affect as predictors, instead of the combined measure of affect balance. Controlling background characteristics, altruistic traits, and the other egoistic traits, both positive affect ($\beta=.104$, $p=.05$) and negative affect ($\beta=.140$, $p=.01$) were significant positive predictors of support provision on social media. In other words, the experience of both positive emotions and negative emotions appeared to increase their likelihood of providing social support to others. This provides support for H3, which predicted that negative affect would be associated with greater social support provision on social media. The low adjusted R square could indicate that key factors in support provision online were not measured in this study.

4.4 Predictors of social support provision offline

To compare how altruistic traits (RQ1) and egoistic traits (RQ2) might perform differently for people's support provision online and offline, an identical hierarchical regression analysis was conducted with dependent variable set as support provision offline (results shown in Table 4.6). Regression assumptions related to multicollinearity and heteroscedasticity were tested.

Results show that variance inflation factors were all above 1 and below 10, indicating the assumption related to multicollinearity has been met. Yet the residuals plot was slightly elongated, and Breusch-Pagan test was 19.608 with 7 degrees of freedom. The associated p value was .006, which indicates that there is evidence for heteroscedasticity. To address this issue, this regression used the robust SE results in the report, and the results were similar to the original results.

R² change for the three blocks were all found to be significant. For the background characteristics, both gender and overall social media usage were significant predictors of support provision offline. Regarding altruistic traits, perspective taking was found to be a significant predictor of people's support provision offline, and empathic concern was not. Finally, regarding egoistic traits, impression management was positively correlated with support provision offline. Affect balance and the need to belong were not found to be significant predictors of support provision offline.

Table 4.6: Hierarchical Regression Analysis Predicting Support Provision Offline

	B	SE B	β	ΔR^2
1. Background Characteristics				.059***
Gender	.295	.094	.153**	
Overall social media usage	.161	.053	.157**	
2. Altruistic traits				.061***
Empathic concern	.078	.080	.058	
Perspective taking	.290	.068	.223***	
3. Egoistic traits				.080***
Affect balance	-.001	.006	-.234	
Need to belong	-.096	.064	-.075	
Impression management	.346	.062	.311***	

Note. Gender was coded as 0=male, 1= female. * $p < .05$, ** $p < .01$, *** $p < .001$. Adjusted R² for full model=.186, $F(7, 394) = 14.124$, $p < .001$.

RQ1 aimed to explore whether altruistic traits differed in their prediction of social support provision on social media versus offline. Based on the results, while neither measure of

empathy was a significant predictor of support provision on social media, perspective taking was positively correlated with support provision offline. RQ2 aimed to see whether egoistic traits differed in their prediction of support provision on social media versus offline. Findings show that there was no difference in how egoistic traits were related to support provision on social media and offline. For both scenarios, only impression management was a significant predictor. The results were virtually the same when the order of two blocks were reversed.

Results for background characteristics in the analyses of support provision on social media versus offline are also worth noting. While gender was not a significant predictor of support provision on social media, it was correlated with people's support provision offline, with females scoring higher. And surprisingly, overall social media usage was found to be a significant predictor of people's support provision not only on social media but also offline.

A follow up analysis with affect balance separated as positive affect and negative affect was also tested for support provision offline as the dependent variable. Controlling background characteristics and altruistic traits, neither positive affect nor negative affect were significant predictors of support provision offline. But if only controlling gender and social media usage (i.e., when the order of the altruistic and egoistic blocks was reversed), positive affect was found to be a positive predictor of support provision offline ($\beta=.167, p=.002$), whereas negative affect was not.

4.5 Belief in altruism

To investigate the role of belief in altruism in moderating the relationship between altruistic traits and support provision on social media, this study proposed H6 and H7. H6 predicts that the positive relationship between empathic concern and social support provision on social media will be stronger among people who believe in the concept of altruism. H7 predicts

that perspective-taking and support provision on social media will be stronger among people who believe in altruism. A regression analysis was conducted to examine these two hypotheses. All independent variables (empathic concern, perspective taking, belief in altruism) were standardized. After standardizing the variables, two interaction terms were computed by multiplying belief in altruism by both empathic concern and perspective taking. Background variables (gender, overall social media usage) were entered in the first block. Then, altruistic traits were entered in the second block, followed by belief in altruism in the third block. Finally, two interaction terms were entered in the fourth block. Results are shown in Table 4.7.

Table 4.7: Regression Analysis Examining Belief in Altruism as a Moderator of Altruistic Traits' Prediction of Support Provision on Social Media

	B	SE B	β	ΔR^2
1. Background Characteristics				.090***
Gender	-.095	.102	-.046	
Overall social media usage	.337	.054	.308***	
2. Altruistic traits				.010
Empathic concern	.039	.054	.040	
Perspective taking	.077	.051	.079	
3. Belief in altruism	-.046	.050	-.046	.002
4 Interactions				.014*
Empathic concern * Belief in altruism	-.009	.048	-.010	
Perspective taking * Belief in altruism	.114	.049	.123*	

Note. Gender was coded as 0=male, 1= female. * $p < .05$, ** $p < .01$, *** $p < .001$. Adjusted R^2 for full model=.101, $F(7, 394)=7.406$, $p < .001$.

Regression assumptions related to multicollinearity and heteroscedasticity were tested using collinearity diagnostics, plotting residuals, and Breusch-Pagan Test. Results show that variance inflation factors were all above 1 and below 10, residuals plotted in a random spread, Breusch-Pagan test statistic was 11.726, with 7 degrees of freedom. The associated p-value was 0.109, which indicates that the assumptions have been met.

Table 4.7 shows that H6 was not supported. The interaction between empathic concern and belief in altruism was not significant. In other words, participants' belief in altruism did not moderate the relationship between their empathic concern and support provision on social media.

Table 4.7 does show that there is a significant interaction between perspective-taking and belief in altruism. To examine the form of this interaction, this study plotted simple slope of support provision on social media regressed on perspective taking at three different values of belief in altruism, including the mean, 1 SD above and below the mean. Figure 4.1 shows the relationship between perspective-taking and social support provision on social media was strongest at one SD higher than the mean of belief in altruism. In other words, perspective-taking was more strongly associated with support provision on social media when belief in altruism was higher. Therefore, H7 was supported.

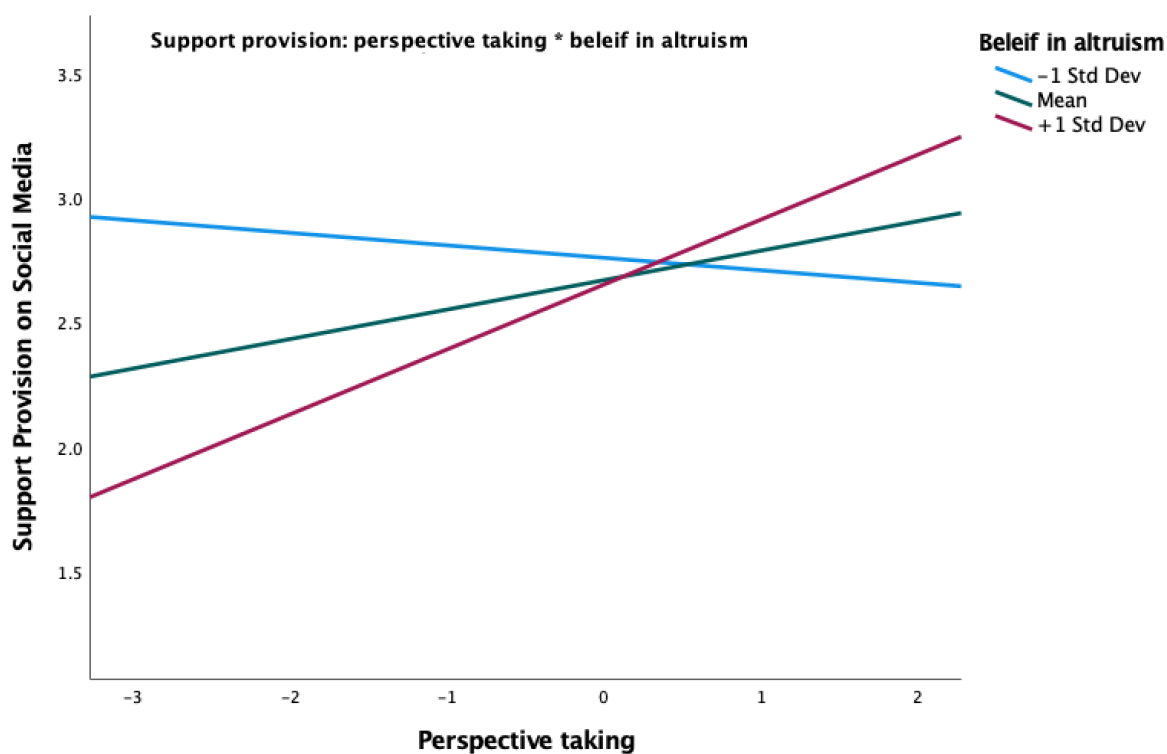


Figure 4.1: Perspective-taking on Support Provision on Social Media at Different Levels of Belief in Altruism

4.6 Outcome Expectations

Finally, the study examined the role of altruistic and egoistic outcome expectations in motivating the provision of social support on social media. First, a scale to measure these two types of outcome expectations was developed. Then a model was tested to examine how outcome expectations play a role in motivating people to provide social support on social media. This section includes two parts, first, a review about the creation of the outcome expectation scale, and second, an SEM model for the mediation model.

4.6.1 Outcome Expectation Scale Creation

This study asked participants 12 questions to evaluate their outcome expectations towards support provision on social media. The majority of the items were adapted from previous research (Hoffner, 2017; Liu, 2018), yet based on the unique perspective of this study to compare altruistic and egoistic outcome expectations, some new items were developed. There were five items that addressed altruistic motivations and seven items that addressed egoistic motivations. Participants rated the items on a 5- point Likert scale (1=strongly disagree, 5=strongly agree).

A principal components analysis (with Varimax rotation) was conducted with all 12 questions (shown in Table 4.8), with Barlett's test ($\chi^2=2165.124$, $df=66$, $p<.001$). The analysis yielded two factors that approximately corresponded to the intended distribution of *altruistic outcome expectations* and *egoistic outcome expectation*. However, two of the items (both on the intended egoistic motivation scale) showed high cross loadings and were dropped from the scale. The two items that were dropped due to high cross-loadings were item 6, "I will feel more connected to others," and item 11, "I will feel closer to others."

After removing the two items with high cross loadings, an identical principal components analysis was conducted for the remaining 10 items (results in Table 4.9).

Table 4.8: Initial Principal Components Analysis for Outcome Expectations

Items	Altruistic Factor Loadings	Egoistic Factor Loadings
1.The other person will feel better.	.82	-.08
2.The other person will feel cared for and supported.	.81	-.08
3.It will offer the recipient hope.	.80	-.01
4.It will improve the recipient's life.	.71	.14
5.The other person will be helped by my support.	.77	.06
6.I will feel more connected to others.	.62	.40
7.I will feel better about myself.	.19	.80
8.It will relieve my guilt.	.26	.73
9.It will reduce my sadness.	.18	.73
10.It will improve my reputation.	-.074	.83
11.I will feel closer to others.	.63	.37
12.It will make other people like me more.	-.02	.84

Table 4.9: Final Outcome Expectations Scale

Items	Altruistic Factor Loadings	Egoistic Factor Loadings	M	SD
Altruistic outcome expectations ($\alpha=.86$).				
The other person will feel better.	.84	-.03	4.15	.88
The other person will feel cared for and supported.	.81	-.06	4.21	.84
It will offer the recipient hope.	.82	.03	3.97	.94
It will improve the recipient's life.	.73	.19	3.84	.94
The other person will be helped by my support.	.80	.10	4.02	.89
Eigenvalue=8.16 Variance accounted for: 81.61%				
Egoistic outcome expectations ($\alpha=.86$).				
I will feel better about myself.	.18	.81	2.99	1.16
It will relieve my guilt.	.02	.75	2.38	1.19
It will reduce my sadness.	.14	.73	2.67	1.19
It will improve my reputation.	-.08	.83	2.43	1.21
It will make other people like me more.	-.03	.85	2.55	1.20
Eigenvalue=1.84 Variance accounted for: 18.39%				
Note. Principal components and varimax rotation were used.				

A paired t-test was conducted to evaluate whether there was a difference in the two types of outcome expectations. The results showed a significant difference, with greater altruistic outcome expectations ($M=4.04$, $SD=.72$) than egoistic outcome expectations ($M=2.60$, $SD=.95$), $t(417) = 26.03$, $p < .001$.

4.6.2 The Mediator Role of Outcome Expectations

After the items for outcome expectations were finalized, this study adopted structural equation modeling (SEM) to test the proposed model that examined the role of outcome expectations as mediators between motivational traits and support provision on social media. The proposed model addressed four hypotheses and two research questions: H8, H9, H10, H11, RQ3, and RQ4. To be specific, H8 predicts that altruistic traits (empathic concern, perspective taking) will be positively related to altruistic outcome expectations, and H9 predicts that egoistic traits (negative affect, need to belong, impression management) will be positively related to egoistic outcome expectations. H10 and H11 predict that both altruistic outcome expectations and egoistic outcome expectations will be positively related to support provision on social media. Finally, RQ3 asks whether altruistic outcome expectations will mediate the relationship between altruistic traits and support provision on social media, and RQ4 asks whether egoistic outcome expectations will mediate the relationship between egoistic traits and support provision on social media.

The SEM was conducted using the Lavaan package in R (version 4.2.1). The results of the SEM show an acceptable model fit: χ^2 (df) = 56.08 (8), $P < 0.001$; RSMEA = 0.121; SRMR = 0.054; TLI = 0.434; and CFI = 0.784. Bootstrap 1000. Overall social media usage was controlled for all tests. Gender was not controlled in the SEM to optimize model fit. The results for the direct relationships are shown in Table 4.10, and are depicted in Figure 4.2.

H8 predicted that altruistic traits, empathic concern (H8a) and perspective taking (H8b), will be positively related to altruistic outcome expectations. Based on the results shown in Table 4.10, H8a was supported, and H8b was not. In other words, empathic concern was positively related with altruistic outcome expectations, while there was not a significant relationship

between perspective taking and altruistic outcome expectations. Figure 4.2 showed the results for the SEM model.

Table 4.10: Summary of Direct Relationships in SEM model

Items	Coefficient
Empathic concern → altruistic outcome expectations	($\beta = .37, p < .001$)
Perspective taking → altruistic outcome expectations	($\beta = .05, p = .41$)
Negative affect → egoistic outcome expectations	($\beta = .00, p = .96$)
Need to belong → egoistic outcome expectations	($\beta = .22, p < .01$)
Impression management → egoistic outcome expectations	($\beta = .22, p < .001$)
Empathic concern → support provision on social media	($\beta = -.09, p = .32$)
Perspective taking → support provision on social media	($\beta = .12, p = .14$)
Negative affect → support provision on social media	($\beta = -.01, p = .41$)
Need to belong → support provision on social media	($\beta = .03, p = .75$)
Impression management → support provision on social media	($\beta = .23, p < .001$)
Altruistic outcome expectation → support provision on social media	($\beta = .30, p < .001$)
Egoistic outcome expectation → support provision on social media	($\beta = .04, p = .47$)

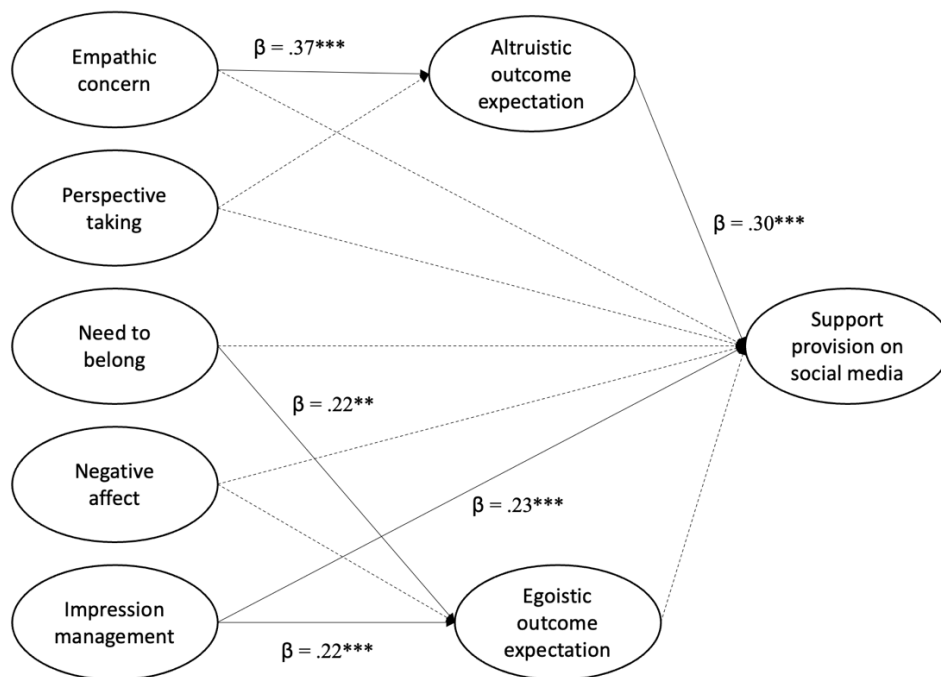


Figure 4.2: Direct Paths in the SEM.

H9 predicted that the egoistic traits, negative affect (H9a), the need to belong (H9b), and impression management (H9c) would be positively related to egoistic outcome expectations. As shown in Table 4.10, H9b and H9c were supported, but H9a was not. Specifically, the need to belong and impression management were positive predictors of egoistic outcome expectations, while negative affect was not.

H10 predicted that altruistic outcome expectations would be positively associated with support provision on social media. Based on the result in Table 4.10, H10 was supported. Altruistic outcome expectations was positively associated with support provision on social media. In other words, people with higher altruistic outcome expectations are more likely to provide social support to others.

H11 predicted that egoistic outcome expectations would be positively associated with support provision on social media. The results show that egoistic outcome expectations was not associated with support provision on social media, and therefore, H11 was not supported.

To understand outcome expectations' potential mediator role in the mechanism of motivational traits influencing support provision on social media, indirect relationships were also tested in the SEM, and results for the indirect effects are in Table 4.11.

Table 4.11: Summary of Indirect Effects for Outcome Expectation as Mediator

Items	Z value
Altruistic Route	
Empathic concern→Altruistic outcome expectation→support provision	(Z= 3.5, p<.001)
Perspective taking→Altruistic outcome expectation→support provision	(Z= .86, p=.39)
Egoistic Route	
Negative affect→egoistic outcome expectation→support provision	(Z= .03, p=.98)
Need to belong→egoistic outcome expectation→support provision	(Z= .67, p=.50)
Impression management→egoistic outcome expectation→support provision	(Z= .72, p=.48)

For the altruistic route, RQ3 asked whether altruistic outcome expectations will mediate the relationship between altruistic traits (empathic concern, perspective-taking) and support

provision on social media. From the results in Table 4.11, the Z score shows a positive indirect relationship between empathic concern and support provision on social media, mediated through altruistic outcome expectations (RQ3a, $Z=3.5$, $p<.001$). However, altruistic outcome expectations did not significantly mediate the relationship between perspective-taking and support provision on social media ($Z=.86$, $p=.39$).

For the egoistic route, RQ4 sought to investigate whether egoistic outcome expectations would mediate the relationship between egoistic traits (negative affect, need to belong, impression management) and support provision on social media. No indirect relationships were found between egoistic traits and support provision on social media. In answering RQ4, egoistic outcome expectations did not mediate the relationship between egoistic traits and support provision on social media.

This study conducted a follow-up study with the c path (the relationship between independent variable to dependent variable, in the current study refer as motivational traits to support provision on social media) removed from the SEM model. Without the c path, there is a significant indirect relationship between the need to belong to support provision on social media, mediated by egoistic outcome expectation. Future research is needed to further examine the difference.

This study also did a follow-up SEM analysis using latent variables instead of mean variables to compare the findings (results in Appendix D). Analysis using latent variables can help to provide a more comprehensive result as comparison, also with a slightly better model fit: χ^2 (df) = 43833.954 (1540), $P < 0.001$; RSMEA = 0.085; SRMR = 0.091; TLI = 0.92; and CFI = 0.92. Due to how affect balance was calculated (i.e., the sum of scores on six positive affect items minus the sum of scores on six negative affect items, which could range from -24 to 24), it

was not suitable to use as a latent variable in the SEM model. Thus, the latent variable version SEM model uses only the negative affect scale. Most of the findings from the latent variable model and the mean variable model were the same. The only difference was impression management was a significant predictor of providing support using mean variables ($p < .001$), but not significant using latent variables ($p = .09$). This difference could be from different model complexity or measurement issues. Future research is needed to further investigate the reason for such differences.

5 DISCUSSION

Social media provides practical functionalities for people to build and maintain their social relationships (Cole et al., 2017; Gibbs et al., 2006; Rosen et al., 2022), and people actively use social media to seek support (Naslund et al., 2016; Yang et al., 2018). Social support could be helpful to people's mental and even physical health, because obtaining enough social support could improve one's overall quality of life and could create a buffer effect for people if they are suffering in a crisis (Yang et al., 2018). The COVID-19 pandemic has also increased people's need to obtain social support (Qi et al., 2020). However, due to the abundance of people seeking social support on social media, the support they receive might be limited, resulting in a substantial number of support-seeking posts going unanswered (Mejova & Lu, 2022).

The challenge people encounter in obtaining adequate social support on social media raises questions and emphasizes the importance of gaining a deeper insight into the motivations behind people providing social support on social media. Thus, to better understand the mechanism of what drives people to provide social support on social media, this study compared altruistic traits and egoistic traits that may affect people's behavior regarding support provision on social media. Grounded by the empathy-altruism hypothesis, the negative-state relief model, the need to belong theory, and work on impression management, this study investigated the predictive value of empathic concern, perspective taking (as altruistic traits), negative affect, the need to belong, and impression management (as egoistic traits) in the context of support provision on social media. Overall, this study found evidence that both altruistic traits and egoistic traits predicted greater support provision on social media. The findings offered qualified support for the empathy-altruism hypothesis and the negative state relief model and demonstrated the

importance of impression management, but did not support expectations based on the need to belong theory.

Past research on prosocial behaviors focused on two different types of traits: altruistic traits, which indicate that people help for others' good, and egoistic traits, which indicate that people help others for their own personal good (Batson, 2009; Maier et al., 2015). However, no studies could be located that have compared these altruistic and egoistic motivations for people's support provision on social media. Thus, to better understand how altruistic and egoistic motivations are involved in people's support provision on social media, this study used several theoretical foundations to guide the examination. First, the empathy-altruism hypothesis states that empathy could arouse people's altruistic motives to reduce others' suffering (Batson, 2009). Secondly, the negative-state relief model sheds light on how people could help others in order to relieve their own negative feelings (Cialdini et al., 1987). Third, the need to belong theory posits that human beings have a need for a sense of belonging (Baumeister & Leary, 1995). To satisfy people's desire for a sense of belonging, they could be motivated to form and maintain positive interactions with others, such as the exchange of social support. Finally, impression management addresses how and why people manage the impressions that others form of them, People often choose to behave in certain ways to make a positive impression on others (Leary & Kowalski, 1990; Schlenker, 2012). This study examined these explanations for the provision of social support on social media in a survey with undergraduates who used social media. A summary of the findings of the study is provided here first, before moving on to a more in-depth discussion.

This study first explored some descriptive information about people's overall social media usage (Facebook, Twitter, Instagram, YouTube, TikTok, and Snapchat) and the frequency of support provision on these platforms. The results showed that Instagram was the most often

checked social media platform among the examples provided to participants and Facebook was the platform that people reported checking least often. This finding is worth noting since Facebook was examined in many previous studies on social support and social media (Chen & Bello, 2017; Gilmour et al., 2020; Nabi et al., 2013). Most participants reported using social media as a platform for support provision, and those who did so reported providing social support to others most often on Instagram and least often on Facebook.

Secondly, this study examined the role of altruistic traits (empathic concern, perspective taking) and egoistic traits (affect balance/negative affect, need to belong, impression management) in providing social support on social media. This was examined in a hierarchical regression analysis, with the two types of traits, altruistic traits and egoistic traits, as predictors. Of the altruistic traits, neither empathic concern nor perspective-taking significantly predicted support provision on social media. Of the egoistic traits, impression management was found to be a positive predictor of support provision on social media. Surprisingly, affect balance and the need to belong were not significant predictors of support provision on social media. The affect balance measurement includes both positive and negative emotional experiences for the past month, with lower scores on affect balance meaning more negative affect. The study conducted a follow-up analysis, identical with the exception that the separate measures of positive and negative affect were included instead of affect balance. These results showed that both positive and negative affect were positive predictors of support provision on social media.

To better understand the relationship between empathy (empathic concern, perspective taking) and support provision on social media, belief in altruism was examined as a possible moderator in a follow-up regression analysis. Although neither measure of empathy predicted support provision on social media, belief in altruism moderated the relationship between

perspective-taking and support provision on social media. Specifically, perspective taking was a positive predictor of providing support on social media among respondents who had a greater belief in altruism.

Third, this study also examined altruistic and egoistic traits as predictors of support provision offline, because any differences in providing support on social media versus offline could offer insights into what is unique about social media. Despite the emerging importance of investigating people's motivation for support provision on social media, most research studying people's prosocial behavior focuses on offline scenarios (Cuadrado et al., 2015; Paulin et al., 2014). Thus, the same hierarchical regression analysis was conducted with support provision offline as the dependent variable. Contrary to the findings for support provision on social media, perspective-taking was found to be a positive predictor of people's social support provision in offline scenario. Empathic concern was not a significant predictor for either the social media or offline contexts. The results for the egoistic traits were similar for providing social support on social media and offline: Impression management was a positive predictor of people's support provision for online and offline scenarios, and neither affect balance nor the need to belong predicted support provision online or offline.

Finally, this study examined altruistic and egoistic outcome expectations for providing support on social media. Outcome expectations can be categorized into various types depending on the specific situations (Liu, 2018; Lv et al., 2022; Verplanken & Wood, 2006). This study constructed a scale measuring altruistic outcome expectations and egoistic outcome expectations. The study then considered whether these outcome expectations might mediate the relationships between altruistic and egoistic traits and the provision of social support on social media. To this end, a structural equation modeling (SEM) was conducted. The SEM analysis model examined

the relationship between motivational traits (empathic concern, perspective taking, negative affect, need to belong, impression management) and social support provision on social media, and the mediating role of altruistic and egoistic outcome expectations. The SEM analysis identified a significant positive path from empathic concern to altruistic outcome expectations, as well as significant positive paths from both need to belong and impression management to egoistic outcome expectations. The analysis also revealed an indirect relationship between empathic concern and support provision on social media, mediated by altruistic outcome expectations.

The sections that follow explore these findings in some depth. The first section focuses on the relationship between altruistic traits (empathic concern, perspective-taking) and support provision on social media. The second section explores the relationship between egoistic traits (affect balance/negative affect, need to belong, impression management) and support provision on social media. The next section focuses on outcome expectations regarding the provision of social support on social media, and their role in the mechanism by which motivational traits affect support provision on social media. Finally, there are discussion sections about theoretical implications, practical implications, limitations, future studies, and conclusions.

5.1 Altruistic traits predicting support provision on social media

Altruistic motivation traits have been mentioned frequently in past prosocial behavior research (Carlson & Zaki, 2022; Cialdini et al., 1997; Cohen & Hoffner, 2012). Among the discussion of altruistic motivations, empathy was pointed out as one of the most important factors that predict prosocial behavior (Batson et al., 2002; Smith, 2017), including social support provision (Chang et al., 2018; Chen & Bello, 2017; Vitak & Ellison, 2013). The empathy-altruism hypothesis also highlighted how empathy could raise people's likelihood of

helping behavior (Batson et al., 2011). Empathically aroused people would tend to help those in need by evoking altruistic motives to reduce others' suffering. Based on the complexity of empathy's definition, this study used two aspects of empathy to measure altruistic traits: empathic concern as an indicator of affective empathy and perspective-taking as for cognitive empathy. To be more specific, empathic concern refers to the affective reaction from observing others, in which one might feel concerned, sympathetic, or compassionated toward the target. Perspective-taking refers to the situation when one tries to understand another person's internal state or adopt the perspective of others (Devoldre et al., 2010). Skerlavaj and colleagues (2018) further emphasized perspective-taking not as the willingness but rather as the ability to understand how other people think.

This study tested the relationship between people's empathy traits (empathic concern, perspective-taking) and support provision on social media. The results from this study provided qualified evidence that empathy played a role in people's support provision on social media. The zero-order correlation analysis shows that perspective-taking was positively related to support provision on social media, but not strongly, whereas empathic concern was not related to people's support provision on social media. In the regression analysis, contrary to prediction, neither empathic concern nor perspective-taking were significant predictors of support provision on social media. However, a moderator analysis found that perspective-taking did predict support provision on social media, but only among people with a higher belief in altruism. Moreover, as discussed in more detail below, the study also found an indirect relationship between empathic concern and support provision on social media, mediated by altruistic outcome expectations.

No direct predicting relationship between empathy and support provision on social media was not aligned with the empathy-altruism hypothesis. This finding can be interpreted by two

features of social media and how people could have evaluated support seeking information differently on social media. Researchers pointed out that relationship closeness and trust could influence the relationship between empathy and prosocial behavior (Maner & Gailliot, 2007; Liu, 2019). Specifically, empathic response depends on relationship context, and people tend to have more empathy towards people they know. However, social media, although it includes close relationships, primarily serves to broaden one's social network. One's social media circles often contain not only strong connections but also numerous weak ties and even strangers. Tibbetts and colleagues (2021) collected data about people's social media usage with their strong ties and weak ties during COVID-19, and results showed that compared with in-person, people spend more time with their weak ties on social media. Many social media platforms also offer anonymity settings, which might further influence people's trust in both the platform itself and the posts requesting support.

Wei and Liu's (2020) study showed that social media's feature of message publicness could decrease one's perceived relationship intimacy. Message publicness refers to the visibility of a social media message. Most platforms allow people to control such message publicness by selecting their audience of the message to be only to their friends or broadcast to everyone. Yet the default setting aims to make the messages visible to all audiences. Research compared support seeking posts in a public or private message setting and found that, compared with publicness, private message support seeking posts received higher quantity and quality of support provision (Liu & Wei, 2018). Social media's feature of publicness can encourage individuals to become more self-conscious and consider how their supportive comments might be perceived by their audience. People may wonder if their supportive message, when seen by a broad audience, will still come across as genuine or not.

Yet the study did find some evidence of a role for empathy in providing support on social media, with the observed moderating effect of belief in altruism (on the relationship between perspective taking and support provision), and the mediating role of altruistic outcome expectations (resulting in an indirect effect of empathic concern on support provision). These findings align with existing research findings. Scholars have suggested that individuals who hold a more robust belief in the concept of altruism tend to exhibit a greater propensity for engaging in prosocial behaviors (Carlson & Zaki, 2021). In other words, those who have a stronger faith in altruistic motives are also inclined to perceive greater levels of kindness and friendliness in others within society. This heightened trust from the cognitive belief in altruism can have the additional consequence of enhancing the trait of perspective-taking and leading them to a higher likelihood of providing support on social media. Similarly, empathic concern appears to have led to stronger altruistic outcome expectations, or the belief that providing support on social media will help or benefit others. Thus, the mediating role of altruistic outcome expectations in this study is consistent with the work on altruistic beliefs discussed above (Carlson & Zaki, 2021). Together, these findings offer qualified support for the empathy-altruism hypothesis.

For the purpose of comparison, the same correlation and regression analyses done with support provision on social media were conducted for support provision offline. Whereas only perspective-taking was correlated with providing support on social media, both empathic concern and perspective-taking were correlated with people's support provision offline. Moreover, whereas neither of the empathy traits was a significant predictor of support provision on social media, perspective-taking (but not empathic concern) was a positive predictor of support provision offline. The finding of the significant relationship between perspective-taking and support provision offline is aligned with past studies that emphasized empathy's predicting value

of prosocial behavior (Batson, 2009; Cialdini et al., 1997). The different findings between empathy and people's support provision online and offline yield interesting insights about social media. A possible explanation could be attributed to the nature of offline versus online environments. In offline settings, individuals usually engage with their close contacts.

5.2 The role of egoistic traits in support provision on social media

Three factors were examined as representations of egoistic traits, including affect balance/negative affect, the need to belong, and impression management. Based on the results from zero-order correlation analysis, regression analysis predicting support provision on social media and offline, and the SEM analysis, this study found support for egoistic predictors of support provision on social media. Specifically, although affect balance was not a predictor of support provision on social media, both negative affect and positive affect were associated with greater support provision. These findings are consistent with the negative state relief model, but also suggest a more complicated role for emotion in motivating support provision. Impression management also was a positive predictor of support provision on social media, but the need to belong was not.

Affect balance/Positive and negative affect. This study used the scale of positive and negative experience (SPANE) to help better illustrate participants' affect balance overall in the past month, in which people reported lower scores in affect balance representing more negative affect (Diener et al., 2010). Some analyses used the separate positive and negative affect scores that were the basis of the affect balance measure, to yield more information. From the zero-order correlations, only negative affect was correlated with support provision on social media. In the regression analysis, affect balance for the past month was not associated with support provision

on social media. Yet when looking at negative and positive affect separately, both were positive significant predictors of support provision on social media.

The negative-state relief model states that people's negative emotions could tend to make them be more engaged in activities that can make them feel better, such as helping other people, especially when their negative emotions were triggered by witnessing other's suffering (Mitchell, 2000; O'Malley & Andrews, 1983). The significant correlation between negative affect and support provision on social media is consistent with the negative-state relief model. On the other hand, past studies identified positive emotions also could promote prosocial behaviors (Aknin et al., 2018). This is because positive emotions can expand individuals' mindsets and shift their focus away from themselves to others, making them more inclined to engage in acts of kindness towards others when they experience positive feelings. Therefore, in the context of social media, people experiencing both negative and positive affect may be more inclined to provide social support to others. In summary, negative and positive affect were found to have more direct links to support provision on social media, while overall affect balance may not capture such nuances or may be affected by other factors that mitigate its predictive power. Further research could help shed more light on this topic and uncover the underlying mechanisms at play.

Need to belong. In the zero-order correlation analysis, the need to belong was found to be positively correlated with support provision on social media but not offline. However, in the regression analysis, when controlling other variables, the need to belong was not a significant predictor of people's support provision on social media or offline.

The need to belong theory suggests that people tend to form more positive interactions with others to satisfy their instinctive need for a sense of belonging (Baumeister & Leary, 1995). The findings of this study do not support predictions derived from the need to belong theory.

Different from what this study found, previous research identified the need to belong as an important factor that leads to prosocial behaviors (Cuadrado et al., 2015; Greenwood et al., 2013; Huang et al., 2016).

Given that providing support could be seen as a way to connect with others, the lack of association between the need to belong and support provision either on social media or offline is surprising. If there is a link between need to belong and providing support is possible that the mechanism is too complicated to be captured in this study. For example, perhaps need to belong fosters support provision, but only under certain circumstances. This study did not measure potentially important factors such as the relationship between support seeker and provider or the nature of support requests. Yet their relationship could be a factor resulting in the need to belong not being a predictor of support provision on social media. Baumeister and Leary (1995) pointed out how people have a pervasive motivation to form and maintain positive and lasting interpersonal relationships, yet with the expended potential of interaction with weak ties and strangers, the act of providing support to other people on social media might not help people to achieve the goal of long-lasting positive relationships, and therefore, might not be able to entirely fulfill people's need for the sense of belonging.

Impression management. Finally, impression management was positively correlated with support provision on social media and offline in the zero-order correlation analysis, and it was also a significant positive predictor in regression analyses of support provision both on social media and offline. Previous studies found impression management to be an important predictor of people's prosocial behavior (Dong & Bavik, 2023; Grant & Mayer, 2009). People tend to perform in certain ways to achieve a more socially desired image. Scholars also hinted at the underlying assumptions for impression management are how other's impression of oneself is

important and could motivate people to regulate behaviors to gain more social approval (Grant & Mayer, 2009). Consistent with previous studies that confirmed impression management's motivational role for prosocial behaviors (Dong & Bavik, 2023; Oh & LaRose, 2016), people with more impression management behavior were more likely to provide social support to others on social media.

The reason impression management predicts support provision on social media could be related to one affordance of social media: the self-presentation opportunities it provides people (Johnson & Ranzini, 2018). In fact, self-presentation has been found to be one of the major reasons people use social media (Seidman, 2013; Zhao et al., 2008). Many social media sites make people's content available to broadcast for all network members to see, which enhances people's motivation to manage their behavior for a better social image. Moreover, people could perceive prosocial norms based on social media's message publicness (Wei & Liu, 2020). People's interactions on social media can be broadcast to other audiences, which means that support provision comments can be observed by others. The public display of support provision may foster a normative influence, prompting others to act the same way (Chiu et al., 2006).

5.3 Outcome expectations

Past literature sheds light on the importance of outcome expectations as an influencing factor in people's behavior (Gan et al., 2016; Lin & Chang, 2018; Lv et al., 2002). People make judgments about the likely consequences of their behavior, especially on social media, where people can observe others and their own outcomes by support-providing behaviors. People's outcome expectations could vary based on the scenarios, and past research examined outcome expectations from different categories, such as altruism or information-seeking outcome expectations (Lv et al., 2022). Yet, a lack of research directly involved people's outcome

expectations with altruistic and egoistic traits to support provision on social media. Thus, to examine this in the current study, this research adapted items from previous research (Hoffner, 2017; Liu, 2018) and added new items to develop a measure of altruistic and egoistic outcome expectations.

Two items were dropped from the outcome expectation scale, due to high cross-loadings: “I will feel more connected to others,” and “I will feel closer to others.” These two items were both related to the need to belong concept. Based on Baumeister and Leary’s (1995) need to belong theory, people tend to build and maintain social relationships through positive interaction with others for a sense of belonging. The theory highlights that even though an increase in sense of belonging could satisfy an egoistic need, the process requires people to focus on others in order to have positive interactions. Moreover, based on Maner and Gailliot’s (2007) research showing that empathy depends on people’s relationship closeness, when people feel closer to each other during positive interactions, it also might foster their empathy towards each other. In fact, based on the zero-order correlation table, the need to belong was significantly correlated with empathic concern. Thus, it makes sense that these two items had high loadings on both the altruistic and egoistic factors of the outcome expectations scale.

Altruistic outcome expectation refers to when people expect if they provide social support to others, the outcome will benefit other people or society. Egoistic outcome expectation means that people would expect if they provided social support to others on social media, they’ll be benefiting themselves from such behavior (potential benefits such as feeling better or improved reputation). The final outcome expectation scale contains ten items (5 measuring altruistic outcome expectation and 5 measuring egoistic outcome expectation).

Altruistic outcome expectations were positively correlated with empathic concern and perspective-taking, whereas egoistic outcome expectation was negatively correlated with these two empathy traits. Both altruistic and egoistic outcome expectations were positively related to the need to belong and impression management. Both altruistic and egoistic outcome expectations were positively related to support provision on social media in the zero-order correlation analysis.

This study used a structural equation model (SEM) to test a model that looks at the relationship between motivational traits (empathic concern, perspective taking, negative affect, need to belong, impression management) and support provision on social media, as mediated by outcome expectations (altruistic and egoistic). The findings revealed an indirect path from empathic concern to altruistic outcome expectation to support provision on social media. The need to belong and impression management were related to egoistic outcome expectations, but egoistic outcome expectations did not have a significant relationship with support provision.

Altruistic outcome expectation's significant relationship with social support provision on social media is aligned with previous research (Chiu et al., 2006). Chiu and colleagues' study identified that the more people believe that their knowledge-sharing behavior could benefit other people (also called community outcome expectation), the more likely they will share knowledge with others in online communities.

Previous literature has also explored the potential impact of empathy on individuals' willingness to assist others (Batson et al., 2002; Cialdini et al., 1997). The current study provided more nuances to understand how empathic concern might affect provision of support on social media by examining the mediating role of altruistic outcome expectation. Even though there was not a significant direct relationship between empathic concern and support provision, empathic

concern appeared to induce people to expect their support provision to benefit other people and, thus, provide more frequent social support on social media. The relationship between empathic concern and support provision on social media through altruistic outcome expectation could be interpreted by Liu's (2019) finding of how outcome expectation is positively associated with trust and commitment. With a sense of trust and commitment, people with empathic concern traits are more likely to offset the sense of social distance (more weak ties and stranger relationships) that social media brings to people and be more willing to provide social support to others.

5.4 Theoretical Implications

This study was grounded by the empathy-altruism hypothesis, the negative-state relief model, the need to belong theory, and work on impression management to explore the relationship between altruistic traits (empathic concern, perspective taking), egoistic traits (affect balance/negative affect, need to belong, impression management) and support provision on social media. In the context of prosocial behaviors, research has shown that empathy, including affective concern towards others or cognitive understanding of other's position, negative affect, need to belong, and impression management, could promote prosocial behaviors.

First, the empathy-altruism hypothesis proposed that empathy would be a trigger to arouse people's altruistic motivation and lead to prosocial behavior (Batson & Shaw, 1991). The findings of this study provide qualified support for the empathy-altruism hypothesis, but also indicate that both altruism and egoism (or self-interest) may motivate support provision, perhaps in different circumstances. First, different from expected, the current study found that in the context of social media, neither empathic concern nor perspective-taking had a direct predicting effect on support provision. In contrast, perspective taking was a direct predictor support

provision offline. The difference for providing support online and offline may reflect differences in the types of support seeking and the relationships encountered in these two contexts. Research suggests that empathy responses vary based on relationship closeness. People are more likely to experience empathy toward people they are close with, and thus help them (Grynberg & Konrath, 2020; Maner & Gailliot, 2007). As social media platforms aim to expand people's networks by incorporating more weak connections and strangers, it might disrupt the dynamics of how empathy influences support provision.

However, this study also found that for those who had greater belief in altruism or stronger altruistic outcome expectations, empathy did motivate support provision on social media. The fact that belief in altruism moderated the relationship between perspective-taking and support provision on social media means that for people who had higher belief in altruism, their perspective-taking was more likely to transfer into support provision. The indirect relationship between empathic concern and social media support provision, mediated by altruistic outcome expectations, implies that college students with higher empathic concern were more likely to believe their helping behavior will benefit others, and consequently, this contributes to an increased likelihood of providing social support on social media. These findings extend the empathy-altruism hypothesis by clarifying circumstances in which empathy motivates helping, which suggests a more complicated mechanism by which empathy motivates people on social media.

Second, negative affect's predicting value was aligned with the negative-state relief model, which states that people engage in certain behaviors, including helping behaviors like support provision, to relieve themselves from negative feelings (Cialdini et al., 1987). The finding of the current study showed that negative affect was associated with greater support

provision on social media. In other words, when people experienced more negative affect, they were more likely to provide social support to others on social media. This finding confirms the negative-state relief model in the context of social media based social support provision. But the results indicated that when people experienced more positive affect, they were also more likely to support others on social media. Past research supported that positive feelings also promote prosocial behavior. Researchers have stated that there could be a positive feedback loop between positive states and prosocial behavior, because support provision also increases positive states (Aknin et al., 2018). Finally, although affect balance was not related to support provision on social media, this is not surprising because the affect balance measure is a difference score based on both positive and negative affect, and thus obscures their separate influences. It should be noted that the study measured both types of affects over the past four weeks, which could not capture the dynamic of positive and negative emotions over time, which people undoubtedly experienced. Thus, in the context of understanding social media-based support provision, considering momentary or even day-to-day fluctuations of discrete emotions might provide more information.

Third, the current study expected that the need to belong would positively impact support provision on social media. As noted in the literature review, the need to belong theory states the need for a sense of belonging is part of human nature, and people engage in positive interaction with others to build and maintain social relationships in exchange for a sense of belonging (Baumeister & Leary, 1995; Cuadrado et al., 2015). Contrary to what was expected, need to belong was unrelated to support provision on social media. In other words, the desire for belonging did not appear to motivate people to offer support on social media. From a theoretical perspective, this finding raises questions about how the need to belong affects how people

evaluate support requests on social media as well as their decisions about whether and when to respond. As noted in the Literature review, the need to belong theory indicates how people must frequently interact positively with others to satisfy their need for the sense of belonging. And as a part of the social support exchange process, people normally provide support to others when they receive a request, and on social media platforms, such requests could be private or open to the public. Based on the affordance of social media, if an individual is providing support to weak ties or strangers, such behavior might not always result in positive interaction or feedback. Thus, providing social support to various weak relationships on social media might not be perceived as positive interactions that contribute to a sense of belonging. Moreover, on social media, people can potentially experience a sense of belonging by engaging in other personal relationship-building and maintenance behaviors. Through online communities, hashtags, and social distance cues, such numbers of sharing friends, people can establish connections and achieve a sense of belonging without actively pursuing relationships and supporting others. Also, there may be other factors at play in the context of social media that affect the role of need to belong, and it should be explored further in future research.

This study confirmed the role of impression management in people's social support provision on social media. Specifically, individuals exhibiting more impression management behaviors were also inclined to offer social support more frequently on social media. Scholars have theorized that people's lives can be greatly influenced by how others perceive and form impressions of them. Consequently, people are attuned to how they are being evaluated by others, and try to behave in ways to deliver a more desired social image to others (Leary et al., 2015; Leary & Kowalski, 1990). Past research identified impression management as an important motivation to affect people's behavior and drive them to more prosocial conduct

(Dong & Bavik, 2023; Finkelstein et al., 2005). The findings of this study are in line with previous studies and confirmed impression management's motivational function in the context of social media based social support. The important findings regarding impression management offer valuable contributions to both social support-related studies and the realm of social media research. These insights deepen the theoretical studies of impression management's influence on support provision on social media.

5.5 Practical Implications

Nowadays, people increasingly tend to seek social support from social media platforms (Leung, 2007; Naslund et al., 2016). Especially after COVID-19, people's perceived loneliness and isolation further led to a dramatic increase in social media usage related to social support seeking (Rosen et al., 2022). However, seeking support on social media does not guarantee the receiving of supportive responses (Mejova & Lu, 2022). Thus, to foster a healthier social support exchange environment, it is important to better understand the mechanism of what drives people to provide social support to others on social media. The findings of the current study shed light on some practical implications for promoting social support provision on social media.

To begin with, the descriptive results suggest that people engage with different social media platforms in distinct manners and exhibit differing degrees of willingness to provide support to others on these platforms. Even though the majority of social media-related social support research was focused on Facebook, the results show that participants not only check Instagram most frequently but also have the highest likelihood of using Instagram to provide social support to others. This finding encourages future studies to explore more on how Instagram could be used to promote prosocial behaviors like social support provision. This research discovered that both negative affect and positive affect independently have a positive

influence on the likelihood of people's support provision social media. This finding emphasized the importance of emotion in motivating individuals to support provision. Thus, leveraging emotions can lead to more effective social interaction and help create a social media environment with more positive support exchanges. To do so, practitioners should be aware of social media users' potential emotional states and make efforts to harness the power of emotions. For example, integrate emotional detecting algorithms and direct people with the kind of support-seeking posts that they are likely to respond to their emotions. Organizations trying to promote support provision (for example, Red Cross, mental health support organizations) could consider including more content that might trigger people's emotions. Future research is needed to distinguish how different emotions could affect responses to different kinds of support requests.

Additionally, it is worth noting that impression management had a direct and positive influence on the provision of support on social media. In other words, people with more impression management behavior tended to provide social media support more frequently. Such finding provides insight with social media apps to design more cues to satisfy people's impression management goals to promote support provision. For example, in online communities (e.g., health and wellness communities, parenting forums, mental health support groups), the organizers can have community support appreciation posts about who is the most supportive person in the group for a certain period. Or people who consistently provide support could earn special badges or achievements on their profiles, allowing them to manage their impression as a caring and supportive member of the community.

Organizations and health practitioners use empathy as a trigger to promote prosocial behaviors (Stock et al., 2008). However, this study suggests that the role of empathy in support provision may be more complicated on social media, with empathy motivating people to provide

support primarily when they believe it will truly benefit others and when they have higher belief in the concept of altruism. Thus, online communities trying to promote support provision should also enhance people's belief in altruism. For example, establish community guidelines to promote support provision and state that altruistic behavior is important. Create education and awareness campaigns to have content promoting altruism, which could ultimately lead to a more supportive community.

Past research emphasized how empathy and altruistic behavior could be based on relationship context (Maner & Gailliot, 2007). People tend to feel empathy and provide help to those they feel close to. Thus, when improving a social media platform to better promote support provision, the site could consider having features to increase the sense of closeness to help with engagement. For example, there are many online groups on Facebook for people with shared interests or experiences, such as online groups for graduate students. People could feel a sense of closeness because of this shared experience, even though they might not actually know anyone in the group personally.

This study highlights the importance of altruistic outcome expectation in affecting social support provision on social media. When people's support efforts align with their outcome expectations, they are more likely to develop a habitual pattern of helping others. Thus, to encourage this behavior, social media platforms could help to provide feedback to support providers. This could include features like a "thank you" button to make it easier for support receivers to express gratitude, thereby increasing the provider's belief that their assistance benefits others.

5.6 Limitations

While this study identified altruistic and egoistic factors that could affect people's social support provision on social media, there are still some limitations of the study that need to be acknowledged.

First, this study used a convenience sample collected from one university (Georgia State University). Therefore, the sample was not a good representation of all college students. To better determine whether this finding can be applied to a broader student population, collecting data from more universities in different geographical regions would be helpful. Moreover, this study focuses only on student samples. Even though college students represent one of the domain age groups for social media users, a wider age group could be considered to broaden the sample population of the study. Despite these limitations, the sample from this study still provides valuable insights since college students represent one of the age groups that use social media most often, and the sample of this study shows diversity from different aspects (e.g., gender, race, majors).

Secondly, this study used cross-sectional survey methods, which limited the ability to demonstrate causality. Lack of causality could be a kind of limitation since correlational data couldn't identify some key factors, such as time ordering, and which variable is the cause of the other one. For instance, while this study revealed an association between impression management and increased social support provision on social media, it remains unclear whether people with a stronger inclination towards impression management are more likely to offer social support on social media or if those who are more inclined to provide social support on social media tend to become more concerned about impression management.

Moreover, the survey method adopted by this study depends on respondents' self-report of their thoughts, feelings, and behaviors. Such a situation could lead to two possible limitations of the study. First, some of the questions asked participants to reflect on their thoughts and behaviors in the past month (e.g., "Please indicate how frequently you've provided social support to others on social media last month"). Normally, people would not keep detailed track of their social media behavior. Thus, participants can only answer such questions based on their memories, which might affect the accuracy of their answers. In addition, offline support exchanges may be easier to remember, compared with online support, since there would be personal interactions, with a greater sense of engagement and emotional involvement, and richer non-verbal cues. Offline interactions also include more environmental cues that can reinforce people's memory about their interactions. To improve the accuracy of survey questions about online support provision, future studies could examine participants' social media activity by conducting experimental design research or by web scraping for their social media activity history to further analyze their behavior. The self-reported survey method also might lead to inaccuracy due to participants' possible desire to answer questions to align with socially acceptable responses. For the same example above, by asking how frequently people provided social support to others last month, it would not be surprising if some participants overestimated their actual behavior.

The survey examined participants' emotional experiences for the past month to offer insight into the role of negative emotional experiences in providing support. However, the majority of research investigating people's behavior and emotions focuses on temporary emotions. Temporary emotion is an important factor since sudden emotional variance could have a strong effect on people's behavior. Yet, it is difficult to capture people's temporary emotional

variances for the past month. While providing evidence regarding the role of emotion over a month brings new insight into the understanding of emotions and behaviors, one of the limitations that this study has is the lack of ability to examine the role of people's temporary emotions in support provision on social media.

One of social media's unique affordances is the availability to interact with different social relationships, including family, friends, acquaintances, and even strangers. Past research emphasized how closeness in relationships affects people's empathy and potential to provide social support to others (Grynberg & Konrath, 2020; Maner & Gailliot, 2007). Such a situation suggests a need to consider the relationship between the support provider and receiver, and how relationship context could be an important factor contributing to support provision on social media. This also raises another limitation of this study, which is the lack of relationship context measurement. The low R square for the regression analysis with motivational factors and support provision on social media also indicates that factors that might contribute to support provision on social media were not measured in the study. However, it is difficult for a survey method to identify the provider and receiver's relationship, especially when asking participants to recall their support provision frequency for the past month.

5.7 Future studies

Based on the findings and limitations of the current study, several suggestions for future studies are provided in this section. This study investigated the relationship between people's empathy traits (empathic concern, perspective taking) and their relationship with people's support provision on social media. Results show the indirect relationship between empathic concern and support provision on social media, mediated by altruistic outcome expectation, perspective taking and social media-based support provision, moderated by belief in altruism.

However, there was no direct predicting relationship between empathy and support provision on social media. Previous study states how relationship closeness affects the relationship between empathy and prosocial behavior (Maner & Gailliot, 2007; Liu, 2019). Future studies should continue investigating the role of empathy in social media-based support provision along with the measurement of the relationship between support receiver and provider.

The current study explored how people's negative affect, positive affect and overall affect balance for the past month might be related to people's support provision on social media. Previous research has highlighted the influence of people's emotions on their behavior (Cuadrado et al., 2015). This study found that both positive and negative affect were positive predictors of support provision on social media, yet affect balance was not. Affect balance considers positive and negative affect together, using a difference score. However, the findings for the two types of affect separately suggest that both negative and positive affect may independently motivate support provision. Future research should investigate how negative and positive affect might have distinct effects on people's support provision on social media, such as whether these emotions would lead people to respond to different kinds of support requests. Moreover, measuring specific and transient emotions could provide additional information about people's support provision on social media. Future studies should look at more specific emotions that might directly affect people's intention to provide social support on social media using experimental design methods (e.g., asking how participants are feeling and presenting a scenario to test their willingness to provide social support).

Future research should also further explore the role of the need to belong in support provision on social media. The need to belong theory suggests that because people have the need for a sense of belonging, they might be motivated to help others in order to build or maintain

relationships (Baumeister & Leary, 1995). Even though this study did not find a relationship between the need to belong and support provision on social media in the regression analysis, the two variables were positively related in the correlation analysis. It is possible that considering a mediator or moderator could uncover a connection between the need to belong and support provision on social media. Given the role of the need to belong in people interpersonal behaviors, it is important for future research to continue exploring this question.

To explore the impact of social media on support provision behavior, future research should investigate various social media features, and examine the connection between users' perceptions of these features and their support-giving activities on the platform. For example, Instagram focuses more on photo sharing, TikTok and YouTube focus more on video sharing, and Twitter focuses more on text sharing. Receiving support requests in these different sharing formats might have different influences on people's motivation for support provision on social media.

As a part of the social support exchange process, this study examined factors that could motivate people to provide social support to others. In future research, it would be valuable to integrate these findings and delve into the complementary aspect of social support exchange, which involves understanding how individuals seek social support on social media and how these requests for support may impact people's willingness to support provision. Future research could also consider utilizing this study's newly developed scale measuring altruistic and egoistic outcome expectations, which can be employed to further examine how different outcome expectations influence the support exchange process.

5.8 Conclusion

This study investigated college students' social media-based support provision from altruistic and egoistic perspectives by applying the empathy-altruism hypothesis (Batson et al., 2011), the need to belong theory (Baumeister & Leary, 1995), the negative-state relief model (Cialdini et al., 1987) and work on impression management (Leary & Kowalski, 1990) as its theoretical ground. This study investigated descriptive information and predictors of people's support provision on social media. Overall, the study found that both altruistic and egoistic factors contributed to participants' likelihood of providing social support on social media.

One of the key contributions of the current study is the finding that negative affect led to greater support provision on social media, while positive affect also had the same predicting power. In other words, when people are experiencing negative affect or positive affect could both lead to support provision on social media. These findings emphasize emotion's impact on social media-based support provision. In addition, this study confirmed the predicting value of impression management to support provision on social media, where people with more impression management behavior tended to provide more social support to others on social media. This study provided qualified support for the empathy-altruism hypothesis in the context of support provision on social media, showing that empathy appeared to promote support provision on social media primarily when people believed their support would benefit others (i.e., greater altruistic beliefs/altruistic outcome expectations). The anticipated relationship between the need for belonging and the prediction of providing support on social media was not observed. This result suggests the need for further research to explore potential mediating or moderating factors in this context.

This study concludes that it is important to better understand what motivational

mechanisms lead to people's support provision on social media. It provides theoretical contributions by examining the applied theories (empathy-altruism hypothesis, need to belong theory, negative-state relief theory, the work of impression management) under a new context of support provision on social media. This study also provided a newly constructed scale to compare and measure altruistic and egoistic outcome expectations. This study provided practical suggestions for organizations in need to promote support provision on social media to design the community or campaign utilizing the findings and enhance the positive feedback a support provider could receive.

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APPENDICES

Appendix A

List of Measures for the Study

Provide social support scale (ISSB; Barrera et al., 1981) -online.

How often have you provided social support to others on social media in the past month? (1=not at all; 2=once or twice; 3= about once a week; 4=several times a week; 5=about every day)

1. Let your social media friends know that they did something well
2. Expressed esteem or respect for competency or personal quality of yours
3. Gave your social media friends some information on how to do something
4. Suggested some action your social media friends should take
5. Agreed that what your social media friends wanted to do was right
6. Let your social media friends know that you will always be around if they need assistance.
7. Expressed interest and concern in your social media friends' well-being?
8. Told your social media friends that you feel very close to them.

Provide social support scale (ISSB; Barrera et al., 1981) -offline.

How often have you provided social support to others offline in the past month? (1=not at all; 2=once or twice; 3= about once a week; 4=several times a week; 5=about every day)

1. Let your friends know that they did something well
2. Expressed esteem or respect for competency or personal quality of yours
3. Gave your friends some information on how to do something
4. Suggested some action your friends should take
5. Agreed that what your friends wanted to do was right
6. Let your friends know that you will always be around if they need assistance.
7. Expressed interest and concern in your friends' well-being?
8. Told your friends that you feel very close to them.

Qualitative open-ended questions about reasons for support provision

Social support provision on social media refers to the emotional or informational support messages you give to others on social media. Based on different platforms, the message could be on comments, direct messages, or reshare messages. For example, Emotional support: When a friend posts about a difficult experience, you may offer words of encouragement, empathy, or understanding. For instance, "I'm so sorry to hear that. You're not alone." Informational support: When someone asks for advice or information about a particular topic, you may share links, resources, or personal experiences that can be helpful.

What are your reasons to provide social support to others on social media?

Please write as many reasons you can think of as you can.

Expected Outcomes of Providing Social Support (Adapted from Hoffner, 2017; Liu, 2018)

I provide social support to others on social media because I expect that (1=strongly disagree, 5=strongly agree):

Altruistic expectations:

- The other person will feel better.
- The other person will feel cared for and supported.
- It will offer the recipient hope.
- It will improve the recipient's life.
- The other person will be helped by my support.

Egoistic expectations:

- I will feel more connected to others.
- I will feel better about myself.
- It will relieve my guilt.
- It will reduce my sadness.
- It will improve my reputation.
- I will feel closer to others.
- It will make other people like me more.

Empathy: Empathic concern and Perspective Taking (Davis, 1980)

The following statements ask about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you (1=does not describe me well; 5= describes very well).

Empathic Concern

1. I often have tender, concerned feelings for people less fortunate than me.
2. Sometimes I don't feel very sorry for other people when they are having problems. (R)
3. When I see someone being taken advantage of, I feel kind of protective towards them.
4. Other people's misfortunes do not usually disturb me a great deal. (R)
5. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (R)
6. I am often quite touched by things that I see happen.
7. I would describe myself as a pretty soft-hearted person.

Perspective-taking

1. I sometimes find it difficult to see things from the "other guy's" point of view. (R)
2. I try to look at everybody's side of a disagreement before I make a decision.
3. I sometimes try to understand my friends better by imagining how things look from their perspective.
4. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. (R)
5. I believe that there are two sides to every question and try to look at them both.
6. When I am upset at someone, I usually try to "put myself in his shoes" for a while.
7. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

The need to belong scale (Leary et al., 2013)

Please indicate the degree to which each statement is true or characteristic of you. (1=not at all true; 2=slightly true; 3=moderately true; 4=very true; 5=extremely true).

1. If other people don't seem to accept me, I don't let it bother me. (R)
2. I try hard not to do things that will make other people avoid or reject me.
3. I seldom worry about whether other people care about me. (R)
4. I need to feel that there are people I can turn to in times of need.
5. I want other people to accept me.
6. I do not like being alone.
7. Being apart from my friends for long periods of time does not bother me. (R)
8. I have a strong "need to belong."
9. It bothers me a great deal when I am not included in other people's plans.
10. My feelings are easily hurt when I feel that others do not accept me.

Scale of positive and negative experience (Diener et al., 2010)

Please think about what you have been doing and experiencing during the past month. How often have you experienced the following feelings? (1. Very rarely or never; 2 rarely; 3 sometimes; 4 often; 5 very often or always).

Positive
 Negative
 Good
 Bad
 Pleasant
 Unpleasant
 Happy
 Sad
 Afraid
 Joyful
 Angry
 Contented

Positive feelings (SPANE-P): Add the scores, varying from 1 to 5, for the six items: positive, good, pleasant, happy, joyful, and contented. The score can vary from 6 (lowest possible) to 30 (highest positive feelings score).

Negative feelings (SPANE-N): Add the scores, varying from 1 to 5, for the six items: negative, bad, unpleasant, sad, afraid, and angry. The score can vary from 6 (lowest possible) to 30 (highest negative feelings score).

Affect balance (SPANE-B): The negative feelings score is subtracted from the positive feelings score, and the resultant difference score can vary from -24 (unhappiest possible) to 24 (highest affect balance possible). A respondent with a very high score of 24 reports that she or he rarely or never experiences any of the negative feelings, and very often or always has all of the positive feelings.

Impression management

Respond to the following statements by indicating about 'how often you behave this way' (1=never behave this way, 5= often behave this way).

Self-promotion

1. Talk proudly about your experience or education.
2. Make people aware of your talents or qualifications.
3. Let others know that you are valuable to the organization.
4. Make people aware of your accomplishments.

Ingratiation

5. Compliment your colleagues so they will see you as likable.
6. Take an interest in your colleagues' personal lives to show them that you are friendly.
7. Praise your colleagues for their accomplishments so they will consider you a nice person.
8. Do personal favors for your colleagues to show them that you are friendly.

Belief in Altruism Scale (Bergner & Ramon, 2013)

Please indicate the extent to which you agree or disagree with the following statements (1=strongly disagree, 5= strongly agree).

1. Some people have a deep care and concern for the well-being of other people in their lives, such as their children or their spouses, that is independent of their own self-interest.
2. There are some people who seem truly to have a very unselfish devotion to the welfare of others.
3. Sometimes, people will help other people and not want anything in return.
4. Sometimes, people are capable of putting others' interests before their own.
5. People don't always consider their own needs when helping another.
6. I believe people are basically motivated by self-interest. (R)
7. People give things to others primarily to get things in return. (R)
8. People are basically selfish. (R)
9. Most people watch out for "number one" and little else. (R)
10. When people do good for others, it's basically to avoid negative consequences such as feeling guilty or suffering social disapproval. (R)
11. Human relationships are basically exchange relationships; that is, they are basically about giving to another in order to get back from another. (R)

General Social Media Use

Please indicate how often do you use Any form of social media generally (1=never, 5= always)

Measure of Social Media Use

Please select all social media platforms that you have an account.

Facebook

Twitter

Instagram

YouTube

TikTok

Snapchat

About how often do you check the following social media platforms? (Choose never if you don't use that specific platform at all.)

(1=never, 5=always)

Facebook feed

Twitter feed

Instagram feed
YouTube feed
TikTok feed
Snapchat feed

About how often do you provide social support to others on the following social media platforms? (1=never, 5=always)

Facebook
Twitter
Instagram
YouTube
TikTok
Snapchat

Demographic Measures

Please indicate your sociodemographic information:

1. What is your gender?
 - Male
 - Female
 - Non-binary
 - Transgender male
 - Transgender female
 - Other (please specify)
 - Prefer not to say

2. How old are you?

3. What is your ethnicity? Select all that apply.
 - Asian/Pacific Islander
 - Black/African American
 - Hispanic/Latino
 - Native American
 - White/Caucasian
 - Other (please specify)
 - Prefer not to say

4. What is your year in college?
 - Freshman
 - Sophomore
 - Junior
 - Senior

5. What's your major? (please write a response)

Measure for future usage

Communal concerns scale (Park et al., 2011; egoistic and altruistic concerns)

1. I worry that others will not be attentive to my needs and feelings.
2. I am fearful that others won't take my needs and feelings into consideration when making a decision.
3. When my needs aren't taken into consideration by others I am hurt.
4. I feel fearful that others will not be attentive to my needs and feelings.
5. I often find myself worrying that others will put someone else's needs before mine.
6. I am willing to sacrifice my interests for the well-being of other people.
7. I enjoy helping people.
8. Witnessing other people's misfortunes makes me feel sad.
9. I usually put my own interest before others' needs (reverse)
10. I often take other people's needs and feelings into account when making a decision.

Appendix B**Recruitment Message – Invitation for GSU Students
Social support provision on social media**

Invitation to Participate in a Survey About Motivation Toward Social Support Provision on Social Media Among College Students.

You are invited to participate in a research study that examines motivation toward social support provision on social media among college students. The study involves completing an online survey on Qualtrics. The survey will take you about 15 to 20 minutes to complete.

You must be age 18 or older to participate.

If you decide to participate in this research study, you will receive extra credit in one course from which you were recruited: 1 percent of the total points available in the course.

If you decide not to participate, or are younger than 18, but would still like to earn the extra credit for this class, you can complete an alternative assignment instead. This alternative assignment involves writing a 1-page paper that discusses how your class helps prepare you for the career you want to pursue. To take advantage of this alternative, please email the Student Principal Investigator, Jessie Liu, before the study closes. She will send you instructions.

If you are interested in participating, click the link below. This will take you to an Informed Consent Form. If you decide to participate after reading the consent form, click “I agree” and you will be taken to the first page of the survey.

At the end of the survey, there is another link that will take you to a separate survey, where you will be asked to enter your name and course information so that we can award you extra credit. This information will be stored separately – no identifying information will ever be linked to your survey responses.

Link to the survey:

Jessie Liu, Student Principal Investigator

Cynthia Hoffner, Professor and Principal Investigator

Department of Communication, Georgia State University

Contact information: yliu91@gsu.edu; choffner@gsu.edu

Appendix C

Georgia State University
Department of Communication
Informed Consent

Title: Motivation for Providing Social Support on Social Media

Principal Investigator: Cynthia Hoffner

Student Principal Investigator: Yuehan Liu

Procedures

You are being asked to take part in a research study. To participate in the study, you must be age 18 or older and a student at Georgia State University. If you decide to take part, you will complete an online survey that will take 15-20 minutes of your time. The survey focuses on people's experience and attitude towards social support on social media. The survey is hosted on Qualtrics.com. No identifying information will be collected with your survey responses. A total of up to 2000 people will participate in this portion of the study.

Compensation

You will receive extra credit in one course for taking this survey. One (1) percent of the total points available in the course will be given to you. For this purpose, you will be asked to enter your name and course information on a separate survey linked at the end of the research survey. This information will be stored separately from your survey responses.

If you decide not to participate in the study, or are younger than 18, you can still earn extra credit. You can do this by completing an alternative extra credit assignment. For this assignment, you will write a 1-page paper about how your class helps prepare you for the career you want to pursue. If you are interested in this option, email the Student Principal Investigator Yuehan Liu, before the study is closed. She will send you instructions.

Voluntary Participation and Withdrawal

You do not have to be in this study. You may skip questions or stop participating at any time. If you skip questions, this will not affect your compensation. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Contact Information

If you have questions or concerns, contact the Principal Investigator Dr. Cynthia Hoffner at choffner@gsu.edu or the Student Principal Investigator Yuehan Liu at yliu91@gsu.edu.

Consent

If you are willing to volunteer for this research, please start the survey by clicking the "I agree" button below.

I agree

I decline

Appendix D

SEM Model Using Latent Variables

Items	Coefficient
Empathic concern → altruistic outcome expectations	($\beta = .76, p < .001$)
Perspective taking → altruistic outcome expectations	($\beta = -.20, p = .12$)
Negative affect → egoistic outcome expectations	($\beta = -.12, p = .08$)
Need to belong → egoistic outcome expectations	($\beta = .23, p < .01$)
Impression management → egoistic outcome expectations	($\beta = .16, p < .05$)
Empathic concern → support provision on social media	($\beta = -.10, p = .53$)
Perspective taking → support provision on social media	($\beta = .21, p = .11$)
Negative affect → support provision on social media	($\beta = .03, p = .60$)
Need to belong → support provision on social media	($\beta = .06, p = .51$)
Impression management → support provision on social media	($\beta = .13, p = .09$)
Altruistic outcome expectation → support provision on social media	($\beta = .21, p < .01$)
Egoistic outcome expectation → support provision on social media	($\beta = .08, p = .22$)
Indirect effect tests	Z value
Empathic concern → Altruistic outcome expectation → support provision	($Z = 2.47, p < .05$)
Perspective taking → Altruistic outcome expectation → support provision	($Z = -1.33, p = .18$)
Negative affect → egoistic outcome expectation → support provision	($Z = -1.07, p = .28$)
Need to belong → egoistic outcome expectation → support provision	($Z = 1.17, p = .24$)
Impression management → egoistic outcome expectation → support provision	($Z = 1.08, p = .28$)