



Original Article

A study of adolescents' and young adults' TikTok challenge participation in South India

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ABSTRACT

Involvement in social media activities has become a significant aspect of adolescents' lives. Participation in numerous social media challenges with a variety of goals is also common among youth across platforms. Recently, the new app called TikTok has resulted in an increased level and variety of social media activities among youth. This study examines the factors related to participation in TikTok challenges, their potential impacts on adolescents and young adults, and participant reflection after performing a challenge. We recruited 25 adolescents and young adults who were actively involved in TikTok challenges from several secondary schools and colleges in South India. We administered a semi-structured, retrospective interview after screening participants through an online survey. The interview assessed motivations for participation, content of social media posts, and perceived consequences of participation. Based on the integrated behavior model, we conducted a theoretically grounded thematic analysis of the data. Our thematic analysis revealed that the factors closely related to the integrated behavior model motivated participation, such as attitudes, norms, personal agency, knowledge and skill, environmental constraints, habits, and individual differences. Further, one of the most frequent reasons reported as a motivational factor was being affirmed by others or peer pressure. Participants typically reported enjoying these challenges and experiencing positive feelings after completing the challenge. Overall, the participants seemed to have positive views of TikTok challenges and enjoyed the views and likes that came from posting about their participation in the challenge. Irrespective of the type of challenge participated in, the participants commented that taking part in online challenges is enjoyable and makes them feel confident. In sum, these adolescents appear to spend large amounts of time on TikTok due to the lure of online challenges and associated emotional states.

1. Introduction

Recently, there has been a rapid increase in the use of social media among adolescents, as 95% of teenagers have access to smartphones and 45% report they are online on a "near-constant basis" (Anderson & Jiang, 2018; Dyson et al., 2016). This is concerning because of associated risks and harm that come with high internet use. Social media can be used to disenfranchise, bully, dox, and discriminate (Cano et al., 2021; Chan, Cheung, & Lee, 2021; Page, Wisniewski, Knijnenburg, & Namara, 2018). Additionally, internet and social media use by youth and young adults has been linked to depression and suicidal ideation (Coyne et al., 2021; Khasawneh et al., 2021; Luxton, June, & Fairall, 2012; Twenge, Joiner, Rogers, & Martin, 2018). This is of particular

concern in India, since according to the World Health Organization, India has higher suicide rates than the global average (India = 16.5 per 100,000, average = 10.5 per 100,000), with the 15 to 29-year-olds as the most vulnerable age group (Health Topics: Suicide, 2021).

1.1. Social media challenges

In the past several years, a phenomenon called social media challenges has emerged with high popularity among youth (e.g., Khasawneh et al., 2021). Social media challenges are activities in which internet users imitate behaviors posted by others on the internet, which can be a part of identity creation and social interaction for youth (Bucknell, Bossen & Kottasz, 2020; Yau & Reich, 2019). Users record their actions and circulate content on social media platforms, where

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they encourage or dare others to repeat the same behavior. The nature of social media challenges across platforms ranges from light-hearted fun to extremely harmful. A light-hearted and prosocial challenge is the 'Ice bucket challenge', which involves pouring a bucket of ice-cold water over a person's head to promote awareness and raise funds for amyotrophic lateral sclerosis (ALS). A potentially harmful challenge is the 'Cinnamon challenge,' which requires participants to swallow a spoon full of ground cinnamon powder without any liquids (Khasawneh et al., 2021). A more extreme example is the 'Blue whale challenge', which has gained much news attention in the last few years (Roth et al., 2020; Khasawneh et al., 2020), as it reportedly has youth engage in more risky and self-harming behavior, with the final task as attempting suicide.

"TikTok" became popular very quickly among youth since the platform tends to focus on short videos, which often include challenges. According to a press release from TikTok, the platform has more than one billion monthly users as of September 2021 both in the United States and worldwide (*Number of monthly active users (MAU) of TikTok worldwide from January 2018 to September 2021*; TikTok, 2021). Many TikTok users are adolescents and young adults (~50% between the ages of 10 and 29) (Auxier & Anderson, 2021; *Distribution of TikTok users in the United States as of March 2021 by Age Group*, 2021). While there are a variety of age groups that use TikTok, younger generations are more prone to high social media use (Auxier & Anderson, 2021).

While popularity of the application continues to increase, TikTok has been the subject of great controversy with troubling reports about its potential negative impact and privacy issues (Bergman, Frenkel, & Zhong, 2020). TikTok specifically has received heavy criticism for bullying (including user-to-user bullying and censorship by the platform such as removing pro-LGBTQ posts) and potentially dangerous viral challenges. These challenges range in their inherent level of risk, such as performing specific dances, eating contests, or the more dangerous challenges, such as the Benadryl challenge that encourages users to take increasing amounts of the medication and post their responses (Minhaj & Leonard, 2021). Recently, TikTok challenges have even included committing crimes, such as stealing something from school and posting an incriminating video online (Marples, 2021). While TikTok often removes this content, it is typically after many adolescents have participated, and users simply then move on to the next challenge. Specific to India, in April 2019, Madras high court appealed to the Government of India to ban this application due to mental health and privacy concerns (Panigrahi & Manve, 2019) and banned the application completely in June of 2020 (Verma, 2021).

Since challenges are a hallmark of the platform and there are unique aspects of TikTok, we sought to examine motivation behind participation in this particular context and geographic location. Several studies have examined TikTok use, however, these studies examine general use, and our study is specific to TikTok challenges. A recent study conducted in China shows that users experience gratification from using the application through self-presentation, trendiness, escapism, and newness (Scherr & Wang, 2021). Another article examined TikTok use in Denmark and found self-expression, identity creation, and seeking to expand online presence as potential factors in TikTok use (Bossen & Kotasz, 2020). Both studies will be interesting to compare with our own since our sample was from a different country and our objective was examining challenges specifically as opposed to TikTok use in general. This study contributes to the literature by specifically examining the motivations in relation to participation in TikTok challenges in south India.

1.2. Adolescent social media use

Adolescents often feel the necessity to use an electronic device as a means to construct a positive social identity, express themselves, and connect with their peers. Users report experiencing a state of higher self-confidence regarding their image and identity as a result of their presence and engagement in social media activities and feed-

back received from others, often in the form of 'likes' and/or comments (Bargh, McKenna, & Fitzsimons, 2002; Dunne, Lawlor, & Rowley, 2010; Gonzales, 2015; Shao, 2009). This elevated state of preoccupation with personal appearance and peer attitudes leads to a constant need for enhancement of photos and content, thus enhancing online presence and social identity (Throuvala, Griffiths, Rennoldson, & Kuss, 2019). This phenomenon has been studied across several social media platforms, including TikTok, Instagram, Twitter, and Facebook (Masciantonio, Bourguignon, Bouchat, Balty, & Rimé, 2021).

While teenagers report both positive and negative effects of social media use, some of the most commonly reported negative effects are distraction and peer pressure (Anderson & Jiang, 2018). Adolescents experience pressure to have a constant, online presence that is acceptable to their peers (Anderson & Jiang, 2018). In addition, adolescents often feel compelled to post content that is likeable and distinctive, and to curate images online in a way that appeals and is appealing to their peers (Griffiths, 2018). The perceived need to maintain an online presence may result in compulsive use of social media (Kuss & Griffiths, 2017). Adolescents have reported experiencing a state of constant salience and vigilance for new content (Throuvala et al., 2019). In addition to pressure for new content, previous research broadly shows negative effects of social media use on mental health (Choudhury, Asan, Alelyani, 2021). Specifically, one study compared well-being related to use of different social media platforms and found that TikTok was not associated with well-being or any other positive outcomes (Masciantonio et al., 2021).

1.3. Problem statement

The large number of adolescents and young adults participating in TikTok challenges and potential negative effects warrant research on motivations behind participation. Since previous research frequently shows either negative or null effects of social media use, it is increasingly important to understand motivation of social media use to curtail negative influence. Therefore, it is important to examine motivations behind TikTok challenge participation due to 1) negative impacts of social media, 2) the large number of users on this particular social media platform, and 3) the nature of TikTok in India. Through understanding the motivations behind TikTok challenge participation, hopefully we can curtail challenge participation through replacing the challenges with non-harmful content and large-scale, algorithm changes on TikTok.

1.4. Research questions

We examine the motivations and nature of participation in TikTok challenges among adolescents and young adults through the lens of the Integrated Behavior Model (more below). An understanding of the factors that lead to behavioral intention and performance of a specific behavior will be useful in the development of strategies to enhance well-being and mitigate risks associated with social media use and challenges among adolescents and young adults. Our study was guided by the following research questions:

- RQ1: *What are the motivational factors from the Integrated Behavioral Model that lead adolescents and young adults to participate in TikTok challenges?*
- RQ2: *What were the characteristics of the post from the participant and how did the participant perceive their relative contribution to social media?*
- RQ3: *What do participants think about their involvement in social media challenges after the fact?*

1.5. Theoretical framework

To address our research questions regarding motivation, we chose the theoretical framework of the Integrated Behavior Model (IBM). This model builds upon and integrates the Theory of Reasoned Action (TRA)

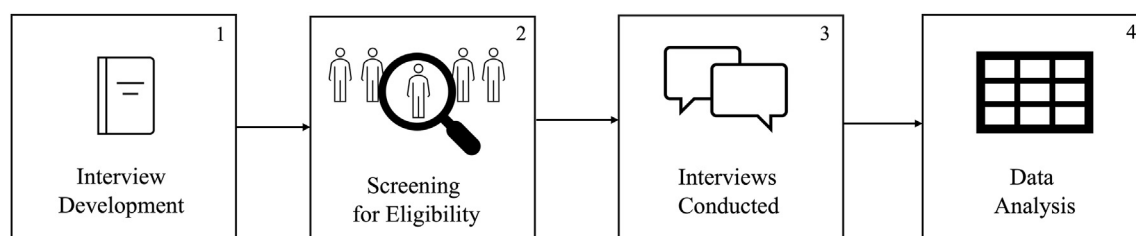


Fig. 1. Schematic of study process, 1) interview was developed based on the integrated behavioral model, 2) participants screened through online questionnaire, 3) interviews conducted in person or via telephone, 4) data analyzed and themes investigated.

and the Theory of Planned Behavior (TPA) (Montaño & Kasprzyk, 2015). While the two theories have significant overlap which led to their integration, an important difference is that TRA emphasizes behavioral intention that is influenced by attitudes and norms, while TPA includes perceived control over behavior. IBM includes important aspects of each theory in a comprehensive manner. IBM is used in medical and health promotion literature, such as in relation to alcohol use behaviors. The theory is specifically aimed at identifying the previously mentioned factors in order to develop effective interventions for specific populations (Montaño & Kasprzyk, 2015).

The model includes both internal and external factors, which interact to form the intention to perform a specific behavior. The main internal factors are attitude (experiential and instrumental), perceived norm (injunctive and descriptive), and personal agency (perceived control and self-efficacy). Each one of these components is influenced by personal beliefs, norms and expectations of others, and feelings regarding the behavior. The previously mentioned factors influence behavioral intention, which then can lead to performance of a behavior. There are also several environmental factors that influence the performance of a particular behavior, such as knowledge and skills, salience of the behavior, environmental constraints, and habit. All these factors coalesce into either the performance of a behavior or the lack of performance of a behavior. The researchers who integrated TRA and TPA into IBM specifically recommend the use of interviews to examine these factors in the population under investigation due to the variability in types of behavior this model can be applied to and personal nature of many of the constructs (Montaño & Kasprzyk, 2015).

2. Materials and methods

2.1. Participants & procedure

Data were collected from July 2019 to January 2020. Participants selected for the interview were from secondary schools and university in two states in India, Kerala and Tamil Nadu. The approval from the Institutional Review Board (IRB) was obtained for carrying out the screening survey and interviews. All participants were screened through an online survey on Google Forms to ensure participation in social media challenges. In total, 2447 youth and young adults from secondary schools and university were screened. Since participants were required to have participated in harmful challenges, many were screened out due to non-harmful challenges. Additionally, participants were selected based on repetitive and engaged use of social media, which was defined as craving and engaging in social media challenges. To assess repetitive and engaged use of social media, questions probed how often participants used social media and average amount of daily electronic use. All selected participants were active on TikTok, defined as having performed different challenges via the platform (refer to Figure 1 for study process).

Participants included adolescents and young adults between the ages of 13 and 25 who lived in two states of India, Kerala and Tamil Nadu. Participants were 64% female and 36% male. Participants were compensated with 1000 Indian Rupees (approximately 14 USD). The various challenges individuals participated in included: Fire (1), Kiki (2),

Chili eating (5), Bike stunt (2), Cinnamon (1), and other various challenges and videos on TikTok (14) Table 1. shows the media platform where participants shared the posts. Only one participant did not post any videos on social media, though this individual had participated in the challenge and was very active on TikTok. A total of 22 had posted their videos on TikTok and 2 participants posted their videos on both TikTok and Instagram.

2.2. Semi-structured interview

After completing the screening questionnaire, 25 participants were administered a semi-structured retrospective interview (the data we will discuss from this point on). Prior to the interview, an informed consent, or in the case of minors, parental consent, was obtained from the participants. The interview was conducted via the telephone or in person and audio recorded with the consent of the participants ($n = 22$ via telephone, $n = 3$ in person based on geographic location). The interview took approximately 30-45 minutes and was designed by the research team to align with constructs from the Integrated Behavioral Model. Interviews were then transcribed verbatim.

2.3. Data analysis

The questions in the interview specifically assessed the constructs of the integrated behavioral model. We conducted a thematic analysis to describe the following constructs within the interview data. The components of this theory make up the motivational factors mentioned below. We conducted a thematic analysis grounded in the constructs from this model. The coding process started with initial coding of the theoretically based motivational factors by a research associate, which was then reviewed by another researcher for quality assurance. Next, the research team analyzed the data based on emerging themes. In addition to the motivational factors, two major themes emerged from the data: 1) Participant involvement and posts on social media, and 2) Post participation reflection.

2.3.1. Motivational factors for participating in online challenges (RQ1)

For this section, questions were framed in such a way to gather the information about the factors that contribute to behavioral intention of youth to perform challenges and activities. The factors include:

Attitude (Experiential and Instrumental): The individuals' attitudes towards the target behavior were analyzed, including what the individual thinks about the participation and the perceived image achieved by participating in the challenges. This was examined through questions such as "Did any of the information that you saw about this challenge seem to make participation appear cool, glamorous, courageous, or special?"

Perceived Norms: This category includes the normative beliefs about what others think one should do and motivation to comply (*injunctive norm*), in addition to the perceptions about what others in one's social or personal networks are doing (*descriptive norm*). An example question would be "What types of things were being said about people who participated in the challenge?"

Table 1
Participant characteristics.

ID	Gender	Age	Challenge	Media Platform (posted)
IND 13	Female	21	Chili eating challenge	TikTok
IND 14	Female	19	Kiki challenge	TikTok, Instagram
IND 15	Female	16	Dress change challenge, dubsmash	TikTok
IND 16	Female	20	Many challenges and videos	TikTok
IND 17	Male	19	Bike stunt	TikTok
IND 18	Male	19	Bike stunt, dubsmash, music challenges	TikTok
IND 19	Male	19	Dubsmash, tree climbing challenge	TikTok
IND20	Male	19	Musical and dubsmash challenges	TikTok
IND 21	Female	19	Chili eating challenge, make up challenge, dress change challenge	TikTok
IND 22	Female	21	Lemon eating challenge, dance and music videos	TikTok
IND 23	Female	20	Chili eating challenge, make up and Michael Jackson challenge	TikTok
IND 24	Female	18	Cinnamon challenge	N/A
IND 25	Female	16	Many challenges and videos	TikTok
IND 26	Female	16	Many challenges and videos	TikTok
IND 27	Female	23	Acting based videos/challenges	TikTok
IND 28	Female	14	Didi challenge and other videos	TikTok
IND 29	Male	24	Many challenges and videos	TikTok
IND 30	Female	23	Many challenges and videos	TikTok
IND 31	Female	21	Many challenges and videos	TikTok
IND 32	Male	21	Many challenges and videos	TikTok
IND 33	Male	21	Dance and acting challenges	TikTok
IND 34	Male	22	Chili eating challenge	TikTok
IND 35	Male	19	Fire challenge	TikTok
IND 36	Female	23	Kiki challenge	Instagram, TikTok
IND 37	Female	18	Chili eating, cinnamon challenge	TikTok

Personal Agency: One's perceived control over behavioral performance (*perceived control*) and one's degree of confidence in the ability to perform the behavior in the face of various obstacles or challenges (*self-efficacy*) were coded here. Personal agency was assessed through the participant's ability to choose participation in the challenge and how to perform the challenge, as many individuals did only parts of a challenge and others altered the challenge. An example question would be "How closely did you duplicate what you saw in pictures?"

Knowledge and Skill: The depth of individuals' knowledge about the performed challenges and their skills to do the tasks were analyzed. Interview questions included, "What information was posted about the challenge when you first learned about it?"

Environmental Constraint: The effect of constraints faced and availability of encouragement by the participants were coded here. Environmental constraints were assessed through questions such as "What might have prevented you from participating in the challenge?"

Habit: The character of platform and device usage and its effects on each person were examined. Habit was assessed through questions such as "How often do you visit social networking sites?"

Other Individual Difference Variables: Both the social support system of the individual and possible depressive symptoms were coded here. An example question to assess social support would be "How often do you get together with friends?" There were also two screening questions for depression, including "Over the past two weeks, how often have you been bothered by having little interest or pleasure in doing things or feeling down, depressed, or hopeless?"

2.3.2. Participant contribution and involvement on social media

Participants' involvement in online activities and their perceived contributions to social media platforms were coded under this category. The information about what the individuals posted about their participation (videos, pictures, their feelings), such as "did you encourage others to participate in the challenge?", and their knowledge about who had seen their posts and how many likes/views they received, such as "how many times do you think your posts were viewed/shared?" were gathered since this has the potential to influence the behavior of others.

2.3.3. Post participation reflection (RQ3)

This section includes the participants' impressions about their participation in challenges. Participants were asked whether there was anything about the challenge they wished they had known before they had taken part, any feelings of regret, advice for the potential participants, and any additional thoughts.

3. Results

3.1. Theme 1. Motivational factors for participating in online challenges (RQ1)

3.1.1. Attitude

The individuals' attitudes, emotional response, and cognitive beliefs towards the given challenge or media activity were analyzed. Most of the participants (above 90%) said that they believed that participating in online challenges was enjoyable (cognitive belief) and reported increased confidence after participation (emotional response). For many participants, enjoyment was more important than making wise decisions. Additionally, 76% of the participants mentioned that they felt cool or special by taking part in these challenges. Participants discussed engaging in online challenges to gain likes and views, which was reported as highly important and related to positive emotional states. For example, one participant said,

"This challenge would have given the teenagers who did this, pretty cool image and also more followers on social media." IND 14 Kiki Challenge

3.1.2. Perceived norm

Eighty-eight percent of participants said that their best friend and other online friends would approve of their online activities, but only 35% said their family and role models would do the same. Eighty-four percent mentioned they would do what others think is right, especially their online friends.

All 25 participants had seen a large number of videos of the challenges before attempting the challenge themselves. Eighty-four percent said that the people in the videos appeared to be happy and enjoying the activity. When asked about what others think about those who take part in online challenges, 80% of the individuals said most of those engaging

in the challenge had a positive attitude towards online challenges while elders tended to have negative attitudes. For example,

"Youngsters will be thinking 'wow pretty cool', while elders would have thoughts like it is crazy and unsafe, and that people are mad to do these types of challenges." IND 23 Chili eating challenge

Eighty-eight percent of participants said their best friends and online friends will definitely perform the same challenge in the future that they performed. Ninety-six percent of the participants knew others who have completed the same challenges and reported their perception of the number of people engaging in online challenges as thousands or even millions.

3.1.3. Personal agency

Regarding self-efficacy, 92% of the participants said that the challenges were doable and well under their control. When asked about the level of difficulty, 90% said it was relatively easy to do the challenges or activities. However, the ways in which the participants attempted the challenges were different. Only 28% duplicated the challenges as originally depicted, while others performed the challenge in their own way or altered the challenge. For example, some participants performed the Kiki challenge but did not do so next to a moving car (i.e., exclusively the song and dance), or participants altered the dance itself.

"Since we did a different form of dance there was less to duplicate." IND 36 Kiki challenge.

3.1.4. Knowledge & skill

When asked about how much the individuals were aware of the challenges in which they had taken part, all said they had seen many videos of the same challenges. Eighty-four percent said they have seen videos of unknown people doing the challenges. There were no rules or warnings in these videos about the possible risks associated with participation in the challenges. The participants did not see harm to others in the posts they viewed.

3.1.5. Environmental constraints

Another factor that affects behavioral outcome is environmental barriers. 72% said they did not face any barriers in participating in online challenges. Eighty-five percent said it is easy to get the right tools and location for the challenges. If the tools were not available, 84% mentioned it would then be difficult to perform the task. All participants claimed that they were well supported by their friends, while their family would not support the challenges that included dangerous outcomes, like chili eating or bike stunts.

"My friends support me and my parents too. Nobody discourages me. Even if somebody does too, I will keep on doing videos/challenges." IND 28 Didi challenge

3.1.6. Habit

When asked about the intensity and frequency of platform, device, and internet usage, the majority of participants reported that they had been using a computer for many years. Additionally, many participants reported using the internet for more than 5 hours per day. This included chat rooms, instant messaging, and SNS as the most used platforms. TikTok, Instagram, Youtube, Facebook, Whats app, and other social media platforms were regularly visited by the participants and most used their mobile phone for internet activity. All had received lessons on safety measures for using the Internet.

3.1.7. Other individual difference variables

Almost all participants reported that they have good family and friends to support them in their ups and downs of life. Several partic-

ipants expressed occasional feelings of lack of interest or pleasure in doing things, but none showed significant signs of depression.

3.2. Theme 2. Participants' perceived contribution to social media (RQ2)

When asked about posting participation on social media, all except one participant said they had posted their videos on TikTok. Two participants posted their content to Instagram in addition to TikTok. Thirty-six percent posted comments and captions along with the videos and 84% encouraged others to do the same challenge they had done, either online or directly. For example,

"We posted the video with hashtag (#) Kiki Challenge, the song name and tag musician Drake. We also challenged our friends to the challenge." IND14 Kiki challenge

All those who had posted their videos received plenty of viewership ranging from 60 likes and views to 2 million. Sixteen percent of participants mentioned that their videos were viewed by their friends and followers in the respective social media platforms. Seventy-six percent of participants said these videos were public, meaning they can be seen by anybody who is on the platform. Participants also frequently encouraged others to perform the same or similar challenges in their posts, thus potentially contributing to social media through propagating the challenge.

3.3. Theme 3. Post participation reflection (RQ3)

We examined the attitudes and comments that participants had after they took part in the challenges. They were asked if there was anything they wished they had known before they participated in the particular challenge. A few said they wished they had known about the harmful side of the challenge, and that if they had known about the potential harm, they would not have taken part in the challenge or would have altered the challenge in some way. For example,

"I might not have done this if I had known about the burning part." IND 35 Fire challenge

Sixteen percent of participants commented that if they had known about TikTok as a platform earlier, they would have done more videos and challenges. One participant said,

"I wish I could have known about TikTok much earlier, so that I could do some more videos." IND 30 TikTok challenges

Seventy-two percent of the participants advised future users to be careful while performing the challenges and that others should not hurt themselves or anybody else. However, 8% of participants advised others to participate in the maximum number of videos and challenges on TikTok and simply have fun. One participant advises,

"Please don't move ahead in life without taking part in all these. These challenges and social media sites are fun filled and it will give us some level of confidence to act out." IND 37 Chilly eating challenge

4. Discussion

The current study sheds light on the motivational factors which lead adolescents to engage in online social media activities and their post-participation reflection of these social media activities. Based on the integrated behavioral model, we discuss the implications of our research findings below.

4.1. Theme 1: Motivational factors (RQ1)

Intentions to perform different behaviors can be predicted from the attitudes toward the behavior, subjective norms, and perceived behavioral control. Being accepted among others, especially peer groups, was

an important factor noted as a motivation to engage in challenges by our participants. Participants commented that the people who engage in these types of activities are viewed by others as special and cool. Our results showed that most participants were ready to follow what their immediate peers were doing and claimed that their friends and peer group would have an accepting attitude toward their online behavior. Both family support and others' attitude toward the challenge were high for non-harmful challenges and low for harmful challenges. In general, participants described adolescents and young adults as seeming to support these activities while acknowledging that older adults do not necessarily support social media challenges. All participants knew many others who completed the same challenges and estimated that many people were taking part in these challenges after viewing videos of others performing the challenges. These observations align with the fact that adolescents and young adults are commonly influenced by their peer groups. In addition to peer acceptance, most participants indicated that participation in online challenges was enjoyable, and these activities gave them more confidence.

Previous research shows the most common reasons for creating content in the pre-adolescent and teenage age groups are self-expression and identity creation, social recognition and peer approval, and fame-seeking, which was found to be the case in the current study (Bargh, McKenna, & Fitzsimons, 2002; Dunne, Lawlor, & Rowley, 2010; Gonzales, 2015; Shao, 2009). Our findings are corroborated by previous research that shows enjoyment, self-presentation, peer factors, and creation of a popular online presence as important in TikTok use (Ahlse, Nilsson, & Sandström, 2020; Bucknell Bossen & Kottasz, 2020; Scherr & Wang, 2021). In the case of TikTok, creating and sharing videos, showing oneself to others, and earning "likes" or other similar activities were all equally powerful motivators for application use (Scherr & Wang, 2021). The motivational factors behind TikTok use in general appear to be similar to the motivational factors behind challenge participation, and these factors appear to be similar across diverse samples (Bossen & Kottasz, 2020; Scherr & Wang, 2021).

While not directly tied to the integrated behavioral model, it is important to note the levels of social media use reported in the current study. Our participants had very high levels of habitual internet use and seemed to value social media highly. Almost all participants reported that they spent more than 5 hours every day on social media sites, whereas some stayed up the entire night engaging in social media activities. This observation is in line with the fact that many participants cited video sharing in order to receive more likes and viewership as an important motivating factor in engaging in online challenges.

4.2. Theme 2: Perceived contribution to social media (RQ2)

Another theme which emerged is the participants' performance and perceived contribution to social media. All except one participant had posted videos of their challenge participation on TikTok. All participants had encouraged others to perform the challenges themselves in the posted captions and comments. Their reasoning was that they wanted others to engage in fun activities and share the experiences, as well as gain attention for their participation. Posting participation on social media indicates that perceived social media contribution is connected to general motivating variables in the sense that posting about challenge participation helps to online identity construction and the desire to extend one's online presence. In terms of social self-presentation, users appreciate how TikTok allows them to post and share self-produced material with friends and family, while enjoying the 'likes' and affirmation often received by posting about challenge participation (Scherr & Wang, 2021).

4.3. Theme 3: Post-participation reflection (RQ3)

We examined what our participants thought about their participation in the challenges and whether they have any regret in doing so. No

participants felt regret for attempting the challenges or being active in TikTok, though a few said that if they had known about the pain or burn caused by the challenge, they might not have taken part in that particular challenge. It appears that our participants overlooked or were unaware of the associated short-term and long-term risks associated with the challenges. Most participants expressed a desire to continue their involvement in TikTok. The responses to the interviews suggest that participants did not want to miss out on the enjoyment these social media networks provide. These findings are consistent with prior studies indicating that adolescents perceive social media use as a positive way to construct their identities (Bozzola et al., 2019). The current study also shows that the integrated behavior model can be applied to social media research to gain information regarding motivations.

4.4. Implications

There are several practical implications from our findings. With the goal of promoting healthy behavior and mitigating risk, first, the culture of TikTok could be altered toward health-promoting behavior through participation in healthy challenges and refusal to participate in risky challenges by users. While this is a large-scale change that would certainly take time, changing the culture of TikTok challenges starts with the individual user. Since our participants did not seem to have many regrets surrounding their participation in TikTok challenges and often reported intention to perform more challenges in the future while encouraging others to take part, it is more likely that replacing risky challenges (e.g., Kiki challenge) with positive challenges (e.g., exercise challenges) would have a more long-lasting impact than simply eradicating the challenges altogether. Previous research shows that TikTok has the potential to effectively disseminate health information (Song, Zhao, Yao, Ba, & Zhu, 2021). Participants may be motivated to participate in trendy challenges that promote healthy behavior that still lead to peer acceptance and popularity while increasing self-confidence.

Additionally, the algorithms of TikTok could better detect potentially risky behavior and block a wider variety harmful content. While TikTok might focus on more overtly dangerous behavior, there is room for blocking risky behavior as well as promoting healthy challenges. Since many participants indicated that they did not know the risks associated with a particular challenge, increasing detection of this type of behavior could be an effective deterrent. Larger scale algorithm changes or partnering with influential users to post health promoting challenges has the capacity to replace harmful content. As TikTok's popularity increases, there is a need to ensure the safety of its users, particularly young people who are more willing to engage in risk-taking behavior.

4.5. Limitations and future research

While the current study is the first to examine the motivations behind participation in TikTok challenges in India, it is not without limitation. Our sample size was moderate for an interview study with 25 participants. Second, participants were from two areas in India, and results may not be generalizable to other geographic regions. Third, future research could use quantitative methods such as surveys to examine the factors related to TikTok challenge participation. Fourth, we were not able to control for mental health status (outside of the two questions that assessed depression) of participants due to the qualitative nature of the study. Lastly, future research could compare TikTok use and challenges pre and post pandemic. Since internet and social media use increased during the pandemic, it would be interesting to examine the motivations behind challenge participation in this context, as well as possible increased use during the pandemic. Future research should examine motivation behind social media challenge participation with a larger sample, across different countries, include mental health factors, and compare TikTok challenge participation with similar challenges on different social media platforms.

5. Impact statement

This study was the first to examine the motivations behind social media challenge participation on TikTok in an area with high internet use in southern India. Through a semi-structured interview, we found that participants had positive perceptions of challenges and the platform as a whole, found the challenges enjoyable, and received positive feedback through social media. The adolescents also reflected on their participation in a particular challenge, with mostly positive feelings toward the challenge, depending on the level of possible harm. Participants reported the intention to participate in more challenges in the future. The positive attitudes toward TikTok challenges and peer motivated framework show the importance of altering challenges to promote healthy behavior and encourage adolescents to engage in positive activities outside of social media.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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