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Original Article

Applying the uses and gratifications theory to identify motivational factors behind young adult's participation in viral social media challenges on TikTok

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ABSTRACT

Social media usage can impact its users' mental and physical health. In particular, social media challenges, activities performed by an individual or a group that are uploaded to a social networking site to achieve a specific goal, have the potential to encourage and spread positive and negative behavior. We conducted interviews with thirty-two college students (ages 18-23) and using qualitative analysis grounded in the Uses and Gratifications Theory determined the motivations underlying participation in these challenges on the rapidly growing and unique social media platform TikTok. Six categories consistent with the Uses and Gratifications Theory emerged from this analysis, indicating that individuals use TikTok for 1) entertainment, 2) convenience and utility for widespread communication, 3) increasing social interaction, 4) finding social support, 5) seeking and sharing information, and 6) escaping from everyday life. We discuss how these motivations can be used to minimize the spread of viral self-harm challenges through TikTok.

1. Introduction

Social media challenges, activities performed by an individual or a group that are uploaded to a social networking site (SNS) for the purpose of achieving a specific goal (Hilton, 2017), have the potential to spread behaviors that are risky for users' physical and mental health (Atherton, 2020; Avery et al., 2016; Grant-Alfieri et al., 2013; Khasawneh et al., 2019a,b; Khasawneh et al., 2021a; Luxton et al., 2012; Silva, 2016). They vary in purpose and in the inherent risk they pose, with many being harmless and consist of activities such as emulating another user's dance routine, lip-syncing performances to music, re-creating a recipe or craft, or following a questionnaire or story template. These participatory challenges have positive benefits, including fostering community (Gruzd & Haythornthwaite, 2013; Setoyama et al., 2011), increasing social capital (Chen & Li, 2017), and decreasing loneliness (Pittman & Reach, 2016).

However, there are dangerous exceptions (Khasawneh et al., 2020a,b; Khasawneh et al., 2021a,b), for example, challenges involving the excessive ingestion of substances (such as salt, nutmeg, cinnamon, and food coloring) that have led to hospitalizations (Atherton, 2020), caused pulmonary damage (Grant-Alfieri et al., 2013) and first-degree burns (Avery et al., 2016), or contributed to self-harm contagion effects among the participants (Khasawneh et al., 2019a,b; Luxton et al., 2012). It is this potential for harm that emphasizes the need to study why individuals are motivated to participate in these challenges.

To address this need, this study applies the Uses and Gratifications (U&G) Theory, an established framework used to explain motivation in media use (Katz et al., 1973). Researchers have employed this theory to study the motives for such wide-ranging media types as traditional media (Albarran et al., 2007; Bantz, 1982; Palmgreen & Rayburn, 1979; Vaterlaus et al., 2019), the internet (Ho & See-To, 2018; Ko et al., 2005; Parker & Plank, 2000; Roy, 2009; Stafford et al., 2004) and SNSs (Alhabash & Ma, 2017; Dolan et al., 2015; Dunne et al., 2010; Whiting & Williams, 2013; Park et al., 2009; Phua et al., 2017). It is based on five principle assumptions: (1) that media use is goal-directed, (2) that audiences play an active role in the media they consume, (3) that media competes with other sources to satisfy needs, (4) that audience members are aware of their motivations for using media, and (5) that only audience members can evaluate the value of media content and the gratifications obtained from media usage (Katz et al., 1973; Lometti, 1977). Operating from this audience-centered perspective, the

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Table 1
Participant demographics.

		n.	*M* (SD)	%
Age			20.22 (1.24)	
Gender	Female	21		65.6%
	Male	11		34.4%
Race	White	22		68.8%
	Hispanic	0		0.0%
	African American	1		3.1%
	Asian	3		9.4%
	American Indian	1		3.1%
Region	Other	5		15.6%
	Midwest	3		9.1%
	Northeast	6		18.2%
	Southeast	22		66.7%
	Southwest	1		3.0%
	Outside the U.S.	1		3.0%

Note: $N = 32$

U&G Theory further postulates that individual psychosocial differences and environmental contexts affect platform-specific motivations and the satisfaction obtained through media usage (Katz et al., 1973). Further, research applying the U&G Theory has found that needs and desires that motivate media consumption and participation (Katz et al., 1973), also vary depending on the platform used (Alhabash & Ma, 2017; Ferguson et al., 2007; Kircaburun et al., 2020).

This study contributes to the literature on social media by conducting a qualitative exploration of motivation for participation in social media challenges on TikTok through semi-structured interviews with thirty-two college students. This age range was selected because the college years are an important period for young adults regarding both their mental health and their health behavior (Lattie et al., 2019). Just as important, this media application is also widely used by this age group as 41% of TikTok users are between the ages of 16 and 24 (Omnicore, 2022). After the interviews, we subsequently determined the motives for TikTok use using a qualitative analysis grounded in the U&G Theory. Our overall findings provide insight into the motivations and needs that influence of users to participate in TikTok challenges, resulting in suggestions for preventing dangerous challenges from spreading. The specific research question guiding this is the following: What needs within and outside the original Uses and Gratifications Theory influence a user's motivation to participate in TikTok challenges?

2. Methods

2.1. Participants

This study included 32 participants (21 female, 11 male), all undergraduates at 2 large universities in the southeastern United States (Table 1), recruited through email advertisements which included a link to a screening survey and a poster with a brief description of the research, information about compensation, and the eligibility criteria. The screening survey, which was administered to assess eligibility, asked individuals to report their age, contact information, and whether they had participated in any TikTok challenges. If the answer to the last question was yes, they were then asked to provide a brief description of the challenge(s) they took part in. Inclusion criteria included falling between the ages of 18-23, status as a current university student, and previous participation in at least one TikTok challenge. This age range was selected because it reflects the median ages of university students at four-year public and private nonprofit institutions in the United States (Hamilton Project, 2017). This study was approved by the Clemson University Institutional Review Board.

2.2. Procedure

This study used semi-structured interviews of each eligible participant. The list of the interview questions can be found in Appendix A and examples of potential follow-up questions in Appendix B. These questions were developed based on literature about the U&G Theory, the spread of social medias challenges, and our research question. The interviews were then piloted, and based on the results, questions were eliminated, rephrased, or added. The subsequent interviews of our participants using the revised questions were conducted over Zoom, a teleconferencing application which allows for audio- and video-calls, by two female undergraduate students. Before the start of the interviews, the participants were asked to provide informed consent and to complete a brief demographic questionnaire asking for their age, gender, race, the region of the country they are from, and the approximate amount of time they spend on TikTok per week. The interview questions then asked them about their experiences regarding participation in viral TikTok challenges, including which challenge(s) they completed, the motivating factors for participation in them, how they performed the challenge(s), and reflections regarding their participation. All the interviews, which ranged from 15 to 60 minutes, were transcribed by a paid transcription service. At the end of the interview, each participant received a $15 gift card as compensation for their time.

2.3. Data analysis

Thematic coding and analysis were used to analyze the data. Specifically, the research team, comprised of six researchers with expertise in Clinical Psychology and Human Computer Interaction, used an inductive technique known as Grounded Theory to aid in comparative analysis and the refining of the coding techniques (Glaser & Strauss, 2006; Corbin & Strauss, 1990).

Throughout the research process, comparative analysis was consistently used. In the initial stage of coding, Researcher One and Researcher Two independently coded five pre-identified transcripts of interviews using inductive coding. These transcripts were coded as excerpts, a group of quotes that centered around a central theme. Some excerpts received multiple codes as responses often reflected various themes. The research team then met to compare codes and develop an initial codebook. After an consultation with an expert in qualitative data analysis that included critiques and theoretical suggestions, the research team revised this codebook, identifying significant codes that were then examined and grouped into categories. Codes from the initial phase of coding were eliminated or modified for clarity.

Researcher One and Researcher Two then re-coded the five pre-identified transcripts. After the second round of coding was completed, the research team met again to review the categories and identify which could be combined and integrated. This process refined the properties and dimension of the categories developed. Researcher One and Two then used the third iteration of the codebook to code the five pre-identified interviews once more, achieving a Krippendorff's alpha of 0.87. The codebook developed in this phase became the final codebook.

In the final codebook, all codes were grouped into six categories based on the major constructs found in the U&G Theory and identified in prior research (Bae, 2018): Seeking entertainment, seeking convenience, seeking escape, seeking information, seeking social support, and seeking socialization (Table 2). The codes which did not fit into one of these categories but were deemed important were considered and analyzed separately as influencing factors beyond the U&G Theory. These codes can be seen in Table 3.

Upon the finalization of the codebook, all interviews were then divided evenly between Researcher One and Researcher Two. After they completed their coding, other members of the research team read the interviews and met to discuss the coded transcripts and to ensure accurate, high-quality analysis. Upon finishing the coding process, the team reached a consensus, with all agreeing that no more changes were neces-

Table 2
Codebook based on the U&G theory.

Category	Codes	Illustrative examples
Entertainment	Entertainment, fun	"I like that they are all pretty short. They're all 15 or 60 seconds. It's not a huge time commitment." *-P3, Opinions on TikTok*
	Entertainment, funny	
	Entertainment, positive	"I think the fact that with the 'For You' page, it always has something, and I just think it's just easy to scroll from one thing to another, to the next." *-P6, Opinions on TikTok*
	Challenge, content, liked	
	Shock value	"It was personal to each person. I feel like there was almost not a wrong way to go about it if that makes sense." *-P2, Bored in the House Trend*
	Entertainment, self-expression	
	Entertainment, active	
	Opinion of app, positive	
	Entertainment, exciting	
Convenience	Amount of effort, easy	"Nothing really besides just how catchy it is. I literally was in an exam the other week, and I just broke out in that dance and I had to apologize over the lockdown browser like, 'I'm so sorry.'" *-P6, Corvette Corvette*
	Modifiable	
	Use of app, casual	
	Perceived skills, have	"That and the fact that it gave me something to do, it gave me the option to be active and move around, have fun in just my room." *-P1, "Savage" Dance*
	App structure	
	Technological skill, easy	
	Brevity	"There were some people that were doing it on the side of a highway. People were doing crazy stuff and I just did it in a room on a floor." *-P11, "WAP" Dance*
	Filming process, easy	
	Accessibility	
Socialization	Leads to social interaction	"It was funny to watch some couples do it. We would always talk about how we were going to do it and then it was funny when we did to watch it back." *-P7, "Here Comes Santa Claus" Dance*
	Social belonging	
	Model, peers	
	Challenge, done in group	"I definitely think it follows a trend of 'Okay, if one person's doing it, I want to do it too,' or 'That's fun,' or 'Let's learn a new dance after we learn this one.'" *-P27, "Renegade" Dance*
	Model, similar personality	
	Model, similar situation	
	Model, admiration for	
	Video with others vs. video alone	
Social Support	Encouragement, from others	"We weren't trying to go viral or anything. We just wanted to make us and our peers laugh. I think it served its purpose." *-P28, "Black Beatles" Trend*
	Support, comments	
	Enjoyment, goal, users	
	Confidence, gained, self	"In a lot of the comments, people were complimenting them on their makeup, on their hair, on their beauty, stuff like that." *-P9, Shoot My Shot Challenge*
	Enjoyment, goal, peers	
	Confidence, gained, skills	
	Encouragement, to others	
	Support, peers	
Seeking or spreading information	Practice	"I found some pretty look useful stuff on TikTok that to learn from. I like that aspect, that one, it teaches you stuff, and two, it caters to what you like and want to see." *-P24, Opinions on TikTok*
	Entertainment, learning	
	Knowledge of trend, desired	"I mean, maybe something comes with socially, knowing something that other people know, maybe it just makes you feel a little bit good to be in on the trend." *-P19*, "*Renegade" Dance*
Escape	Addictive	"It's really addicting. Sometimes I spend way too long on there and I'm like, 'Wait, it's three hours later, and I literally don't realize it.'" *-P14, Opinions on TikTok*
	Entertainment, creative	
	Time consumption, bored	
	Distraction	"I think it's a fun way to just do something. If we're bored, we're all like, 'What's a TikTok we can make?'" *-P15, Opinions on TikTok*

Table 3
Codebook based on factors outside of the U&G theory.

Category	Code	Illustrative examples
Avoidance	Avoidance, extreme video	"I was doing the dance by myself… and receiving negative commentary, they would have done a number on me."-*P1, "Savage" Dance*
	Avoidance, general	
	Avoidance, judgment	
	Camera shy	"If I really felt like I was going to get a lot of hate for it, then I definitely wouldn't have posted it but it was nothing different than anyone others, no one elses." -*P6, "WAP" Dance*
	Confidence (lack of, self; lack of, skills)	
	Cyber Security	
	Opinion of app, negative	
	Potential negativity / toxicity	
	Perceived skills, lack of	
	Academic or work-related repercussions	
	Strong opinions	
	Sexuality, negative	
COVID-19	Quarantine, cope with	"During quarantine, we were all trying to adjust and process but everyone was making light of it and it made all of us just giggle at it." -*P2, Bored in the House Trend*
	Quarantine / COVID-19	
Negative Outcomes	Amount of effort, hard	"Learning it was probably more difficult than I thought."-*P31, "Renegade" Dance*
	Appearance, social comparison	
	Negative comments	"People making videos about other people meaning maybe verbally harming them or people commenting on other people's videos just being mean for no reason." -*P29, Opinions on TikTok*
	Satisfaction with video, lack of	
	Time usage (Dissatisfaction with, more than expected)	
Positive Outcomes	Confidence (gained, self; gained, skills)	"A lot of people seem to have an empowered attitude." -*P21,"Savage" Dance*
	Encouragement, from others	
	Entertainment, positive	" I got a lot of views. I got some comments. I thought it was really funny. It was a good way to distract myself from some homework. I saw only positives from posting it." -*P15, Christmas Dance*
	Negatives, none	
	Time consumption, positive	
	Representation	"I think everyone really likes this trend. I think it was a good way to build a community around TikTok and I think it was the first huge trend that really got attention. I think everyone just enjoyed it and had fun with it." -*P30, "Renegade" Dance*
	Satisfaction with video	
	Support (comments, peers)	
Other	Virality and fame (fame, goal; fame, not a goal; perceived virality; Model, famous; Model, stranger)	"I definitely did not expect to go viral or think that I would, so that really wasn't a factor." -*P6, "WAP" Dance* "I was that person that you see laughing. You see people who do it as very into it, the other couple who are laughing or can't take it seriously." -*P18, "Renegade" Dance* "I love just seeing people of my color embracing their beauty and then posting things online to where other people can be inspired and also embrace their beauty." -*P9, Shoot My Shot Challenge*
	Self-presentation (Trying versus not trying, get the trend right, social comparison)	
	Preserve memory of time or place	
	Representation	

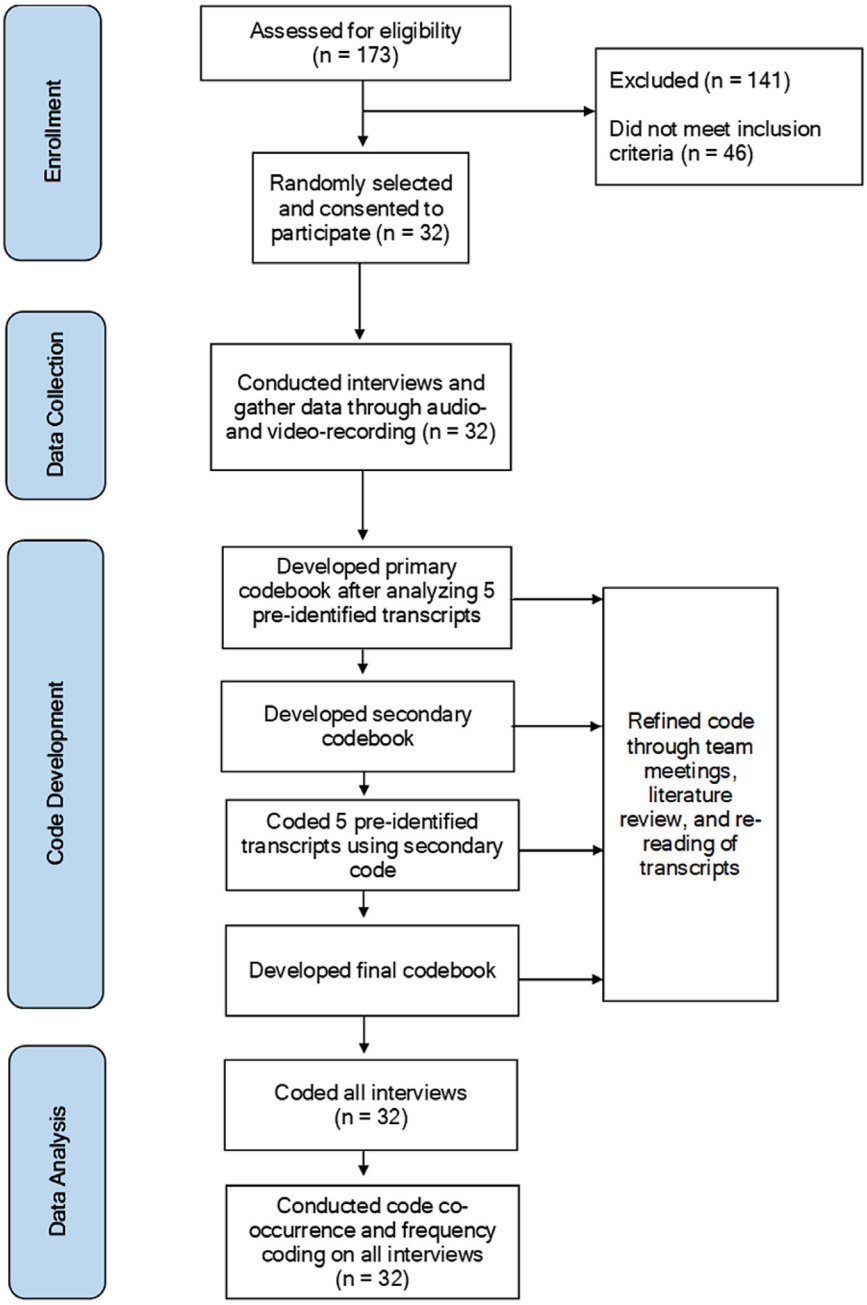


Fig. 1. Data collection and analysis process.

sary before running code co-occurrence and frequency coding analyses. Intercoder reliability was not used. In its place, the research team followed alternative quality criteria techniques (O'Connor & Joffe, 2020), including integrating multiple samples of raw data, transparent reporting of analytic criteria, and triangulation among numerous studies in the analysis. The code co-occurrence and frequency coding were then performed using Atlas.ti to gain a more in-depth understanding of how frequently the categories appeared in the interviews and how they interacted with one another as shown in Fig. 1.

3. Theoretical model

U&G is uniquely suited for investigating SNSs as it stresses the relevance of digital media in the context of everyday life, the variety of needs it addresses, and the active role of the audience. Through in-depth interviews, Whiting and Williams (2013) identified 10 motivations for general SNS usage based on the U&G framework: social interaction, information seeking, passing time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, and knowledge of others. When comparing specific motivations for Facebook, Twitter, Instagram, and Snapchat use, Alhabash and Ma (2017) found motives varied in degree and relevance depending on the platform being used. This idea that user behavior on different SNSs is motivated by different needs is echoed across the literature (Masciantonio et al., 2021; Pelletier et al., 2020; Phua et al., 2017; Stanley, 2015), pointing to a need to study platforms individually.

Shao (2009) expands upon the U&G Theory by identifying three categories of SNS use: consuming, participating, and producing. Consuming refers to the passive viewing of social media content, while participating encompasses user and content interaction, such as commenting on, liking, or sharing content, and production involves the creation and publication of content, with participation in social media challenges falling into this last category. Shao further asserts that different needs drive dif-

ferent uses. For instance, users consume for information and entertainment, participate for community development and social interaction, and produce for fame-seeking, identity-creation, and self-actualization purposes. Shao's categorization of social media has become a widely established framework for studying its use (Bossen & Kottasz, 2020; Heinonen, 2011; Khan, 2017; Yoo & Gretzel, 2011).

Much of the prior research investigating motivation behind participation in social media challenges examines established SNSs such as Twitter, Instagram, Facebook, and YouTube. However, little is known about the motivational factors underlying production on the rapidly growing social media platform TikTok, an online platform for viewing, sharing, and producing short videos. With more than 2 billion downloads worldwide, 850 active users worldwide, and 100 million active American users, this application has an enormous reach (Iqbal, 2022). Its massive audience, accessible design, and content-focused format separate it from other social media networks (Anderson, 2020). For example, its homepage, the "For You" page, has a distinctive design: it is an algorithm-driven feed of videos from all public creators on the app, unique from other SNS homepages that display accounts that the user already follows. This algorithm-driven design makes it possible for users with few followings to quickly gain an audience on the platform as well as allowing for the rapid dissemination of challenges across TikTok (Anderson, 2020; Qiyang & Jung, 2019).

Research that has explored TikTok motivation is primarily quantitative, addressing the general motivations for its use, not specific motives for challenge participation. For example, Omar and Dequan (2020) employed a large-scale survey to examine how personality traits and user motivation influence TikTok usage in terms of consuming, participating, and producing for Chinese consumers, their findings suggesting that user motivations (notably archiving, escapism, social interaction, and self-expression) rather than personality traits influenced its usage. In contrast, Meng and Leung (2021) found that personality traits, particularly narcissism, significantly influenced TikTok usage in their large-scale survey of Chinese users. Further, Bossen and Kottasz (2020) conducted a quantitative exploration of uses and gratifications sought by TikTok consumers using a large-scale survey of Danish schoolchildren, finding that entertainment, fame-seeking, self-expression, and social recognition are the key motives. However, Fransico and Ruhela's (2021) survey examining the relationship between behavior and motivation among 67 TikTok users in the United Arab Emirates identified escapism and peeking as two primary motives for its use. The varied results from these studies emphasize the need to further examine the subject and explore motives specific to an American audience.

4. Results

4.1. Factors in the original U &G Theory that influenced participants' motivation to participate in TikTok challenges

The results discussed in this section, which directly relate to our analysis of the interview data using our research framework that is aligned to the U&G Theory, are presented in order of the salience reported by our participants. The frequency of our codes in reference to the U&G Theory can be found in Table 4.

4.1.1. Entertainment

Entertainment was the most salient category, comprising 24.2% of the needs identified by the participants. Of the codes in the entertainment category, the interviewees were most drawn to challenges that appeared to be fun, representing 29% of excerpts in the entertainment category. In addition to being an important need, many subjects also correlated fulfillment of the fun need with a successful experience on TikTok. For example, when asked about the overall success of the TikTok challenge, P5 responded:

> If you measure success with likes, then [it] probably [did] not [do] that well, but if you measure it with the fun and good time that you had, then I'd say that that was successful. – P5 (Shimmy Shimmy Yeah Dance)

Humor was the second most sought-after form of entertainment (27% of entertainment excerpts), with many participants noting that it was an attention-grabbing factor when choosing a challenge in which to participate. For instance, P17 alluded to the model's humor as a motivating factor:

> I liked just mimicking the girl because she was so funny. It was just funny to do exactly what she did. – P17 (Corvette Corvette Dance)

Similarly, many participants cited the extrinsic motivation of other users finding their video funny. P14 identified the desire to be seen as funny as the reason she chose to participate in a challenge:

> I have a few friends who watch my TikTok….A couple of them reached out and said it was funny…. [I} just like the instant gratification of someone being like, "Oh, that was funny. It's funny that you posted that." – P14 (Slap Reaction Challenge)

Choosing humorous challenges could be related to the desire to appear nonchalant about your post's performance. As P11 notes, a successful challenge is sometimes viewed as one in which the poster appears not to try:

> I had not had the sound the fart sounds in it to make it funny… if I had been dressed up and had the actual sound and [had] been actually trying. Unless I absolutely did so good in it, so good that it went viral or something, my friends would have been like, "Why are you doing that, that's so weird?" – P11 ("WAP" Dance)

In 13% of entertainment excerpts, interviewees sought out challenges that provided positive entertainment, perhaps because positive as opposed to controversial trends were less likely to produce negative outcomes. This distinction is made clear by P2:

> This is why this is one of my favorite trends. It was so light-hearted that there weren't a lot of things that were bad about it or…went down the wrong path. – P2 (Bored in the House Trend)

In 11% of the entertainment excerpts, participants chose challenges because they liked something specific, such as the sound used, the topic, or the activity involved. Other motivations classified under entertainment included the shock value of the challenge (6%), self-expression (4%), the active nature of the challenge (3%), finding the platform entertaining (3%), and perceiving the challenge's content to be exciting (3%).

4.1.2. Convenience

Convenience was the second most sought-after need, representing 17.1% of needs identified by the interviewees. Interviewees were drawn to challenges they perceived as easy, or at least achievable, with 30% of excerpts in this category being coded "amount of effort, easy." Participants commented on the ease of the challenge 137 times in interviews in contrast to the 32 times they referred to its difficulty; as P16 explained

> Those were one of the easier ones that I saw, and I was like, "All right if I'm going to make something, I feel like this is probably pretty on par. That's something I can do." – P16 (Google Slides Trend)

Participants identified modifiability and brevity as factors that made a challenge convenient, alluding to the former 77 times in the interviews (17% of convenience excerpts) and the latter 24 times (5% of convenience excerpts). Subjects identified modifiable trends as desirable because they allowed the participant to produce a version that best fit his or her skill set, while brevity was convenient because these challenges required less investment to complete.

While 30% of the excerpts in the convenience category were coded "perceived skills, have," interestingly, participants mentioned possessing the skills required to complete a challenge (55 excerpts) only marginally more than they mentioned lacking the skills required to com-

Table 4
Frequency of codes for categories in the U&G framework.

Code	Category	*n*	%
Entertainment, fun	Entertainment	187	0.069
Entertainment, funny	Entertainment	174	0.064
Entertainment, positive	Entertainment	88	0.033
Challenge, content, liked	Entertainment	71	0.026
Shock value	Entertainment	39	0.014
Entertainment, self-expression	Entertainment	29	0.011
Entertainment, active	Entertainment	27	0.010
Opinion of app, positive	Entertainment	22	0.008
Entertainment, exciting	Entertainment	17	0.006
24.2% of all codes fell under the Entertainment category			
Amount of effort, easy	Convenience	137	0.051
Modifiable	Convenience	77	0.028
Use of app, casual	Convenience	65	0.024
Perceived skills, have	Convenience	55	0.020
App structure	Convenience	46	0.017
Technological skill, easy	Convenience	43	0.016
Brevity	Convenience	24	0.009
Filming process, easy	Convenience	9	0.003
Accessibility	Convenience	6	0.002
17.1% of all codes fell under the Convenience category			
Leads to social interaction	Socialization	117	0.043
Social belonging	Socialization	111	0.041
Model, peers	Socialization	63	0.023
Challenge, done in group	Socialization	45	0.017
Model, similar personality	Socialization	37	0.014
Model, similar situation	Socialization	33	0.012
Model, admiration for	Socialization	26	0.010
Video with others vs. video alone	Socialization	25	0.009
16.9% of all codes fell under the Socialization category			
Encouragement, from others	Social Support	44	0.016
Support, comments	Social Support	37	0.014
Enjoyment, goal, users	Social Support	34	0.013
Confidence, gained, self	Social Support	28	0.010
Enjoyment, goal, peers	Social Support	24	0.009
Confidence, gained, skills	Social Support	22	0.008
Encouragement, to others	Social Support	18	0.007
Support, peers	Social Support	13	0.005
8.1% of all codes fell under the Social Support category			
Practice	Seeking or spreading information	81	0.030
Entertainment, learning	Seeking or spreading information	78	0.029
Knowledge of trend, desired	Seeking or spreading information	29	0.011
7.0% of all codes fell under the Seeking or Spreading Information category			
Addictive	Escape	48	0.018
Entertainment, creative	Escape	47	0.017
Time consumption, bored	Escape	40	0.015
Distraction	Escape	27	0.010
6.0% of all codes fell under the Escape category			

Note. *N*= 2074

plete it (45 excerpts). This small difference is perhaps explained by the ability to practice a challenge prior to posting, as practice was mentioned 81 times by interviewees. For example, P8 describes how she overcame her lack of dancing skill with practice:

> At first, I didn't really think I could do the dance but then after practicing it a while, it wasn't bad. I thought it would be fine to post. – P8 (Get Down Dance)

Further, participants' flexibility about having prior skills may also be associated with nonchalance about their performance. In 14% of convenience excerpts, subjects mentioned adopting a causal attitude towards posting on TikTok. As P1 described:

> I feel like TikTok is funny because people post pictures on Instagram that they think look good, but on TikTok people post whatever they want, and it doesn't matter. – P1 ("Savage" Dance)

The design of the application itself also seems to contribute to the convenience our interviewees associated with TikTok: 10% of the excerpts referenced the app's structure, 9% the low levels of technological skill, 2% the easy filming process, and 1% accessibility.

4.1.3. Socialization

Socialization, the use of SNSs to communicate and interact with others (Chapan, 2003), followed convenience as an important motive, representing 16.9% of the needs, with "leads to social interaction" being mentioned 117 (26% of the excerpts in the socialization category) times in the interviews and "social belonging" 111 times (24% of excerpts). The popularity of dance challenges may explain this result as they are often performed in groups, leading to social interaction. Additionally, participating in dance trends rather than creating an original TikTok means participants face less potential negative criticism. P13 explained the ease of obtaining social rewards when performing dance challenges:

> If you try to do something yourself, you might be scared that it looks stupid. I think, in that aspect, it's easier to watch something and just look at what they're doing. You know that they're on the beat, that it looks cool. It would take some time to come up with your own thing. You don't know if it's going to look good, so you just watch them, replicate what they do. –P13 (Footwork Dance)

Subjects also cited fear of missing out (FOMO) as a motivating factor, further suggesting that knowledge of TikTok and participation in the

challenges facilitates social belonging. As a result, several study participants, like P13 below, feared negative social ramifications from lack of participation:

> All the challenges – I feel it's definitely a FOMO kind of thing. If you're not on it, you might be missing out, or if you're not participating in it, you might be missing out. Yes, I think the fact that a lot of people use it, makes you want to use it more. – P13 (Footwork Dance)

Moreover, subjects often voiced a preference for group challenges (10% of socialization excerpts) because, in addition to strengthening social bonds, they reduce the fear of negative consequences. As P16 says:

> Some of my motivation is my friends were willing to do it, so it wasn't just you dancing alone. It was a group of you. It's the motivation of your friends all cohesively doing it. – P16 ("Blinding Lights" Dance)

Finally, for many participants, the challenge's original poster was a peer (14% of socialization experts), had a similar personality (8%), was going through a similar situation (7%), or had admirable qualities (6%). Thus, these similarities between model and participant may have led some interviewees to feel socially connected through challenge participation. As P11 described:

> I guess I have similarities with people that did it. All my friends know it. All my friends have TikTok. We all have the ability to watch those videos, and learn the dance, and we're all in college, and we all are not in middle school or high school. We're all older. – P11 ("Savage" Dance)

4.1.4. Social support

This category refers to deriving support from other users or providing support to others through use of the platform, with 8.1% of our participants alluding to these motivating factors. The two most common sources of social support they identified were comments from friends in conversation (20% of the excerpts in the social support category) and the comments section of the app (17% of the social support excerpts). For example, when asked to provide motives that led her to participate in a challenge, P23 said:

> It might be positive comments of people saying, "I like your background," when I was abroad, like, "You're so funny." – P23 (Thick Dance)

Perhaps due to this support, participants noted gaining confidence in themselves (13% of social support excerpts) and in their skills (10% of social support excerpts) through participation in a challenge on the platform.

Some of our interviewees also identified the ability to provide social support (6% of social support excerpts) and to encourage others (8% of social support excerpts) through their example of participation. For example, P23 said:

> The positive would just be some people hyping you up or other people wanting to learn the dance because I always have a lot of people that are like, "Teach me how to do it." I'm like, "Okay. I will." – P23 ("Rake It Up" Dance)

In a similar altruistic vein, 15% of social support excerpts referred to posting for the enjoyment of other users of the app, and 11% alluded to posting for the enjoyment of peers.

4.1.5. Seeking or spreading information

Seeking or spreading information was the fourth most important motive, with 7.0% of excerpts identifying information or self-education as an important need. Participants often looked for information about videos that explained how to better perform a challenge. In some cases, the subjects sought information to learn a new skill, or a hack (41% of the excerpts in the information category). For example, P3 participated in the "whipped coffee" trend, in which users concocted a unique coffee beverage and posted a video of the process. P3 identified knowledge of the recipe as motivation:

> I was interested to try what it was, and it made me curious about the recipe. – P3 (Whipped Coffee Trend)

Our participants also sought information about trends, specifically dance trends, for social belonging, with 11 mentioning knowledge of a trend and social belonging in the same sentence. For example, P1 said:

> It doesn't necessarily make me feel more confident in myself physically, but it has made me feel more confident socially because I feel so much more at ease socially when it does come on in public, and I do have something to relate to people with – whether it be my friends that I'm already very close to or people I don't know at all. It's such an unspoken thing, and it's almost like a natural reaction. It's like someone's at the doctor's office, and they're like hitting my knee … It's like the song comes on, and people just do (my TikTok challenge) dance. It did help my social anxiety a lot in a lot of situations like that. – P1 ("Savage" Dance)

4.1.6. Escape

Surprisingly, of the categories originally included in analysis, seeking escape was the least salient, representing only 6.0% of the excerpts. Participants saw escapism as both positive and negative, with some viewing TikTok as a productive way to fill time when bored (25% of escape excerpts). As P7 said:

> Sometimes when all my friends will be together, we'll be bored, we'll just make TikTok dances because it's fun and it's light-hearted. You don't have to think about it too much. – P7 (Savage Dance)

Participants also noted participation in challenges as a distraction (17% of escape excerpts) and a way to be creative (29% of escape excerpts). Distraction was especially significant during the first months of the COVID-19 pandemic. When asked for his primary motivation, for example, P21 explained below how he used TikTok challenges as an escape during early quarantine:

> Probably just something to do. Something different, a little creative after being stuck at home for so long. – P21 (Wrapping Challenge)

In contrast, other participants viewed TikTok as an unproductive means of escaping reality and demonstrated concern about its addictiveness (30% of escape excerpts). Multiple participants were dissatisfied with the amount of time spent on the app, noting that they spent more time on TikTok than expected. Their comments create an interesting contradiction because the brevity of the format is often referred to as a factor that makes the app convenient. Yet, the process of making and consuming TikTok content often takes longer than expected. P27 articulated this frustration when describing what she does not like about making TikToks:

> Sometimes I think it's a waste of time. I didn't need to be doing that when I should have been doing homework, or I should have been doing this because it, TikTok, definitely distracts me at times when I will say, "I just need a five-minute break," and then I'll look up and it's 30 minutes later. – P27("Renegade" Dance)

4.2. Factors outside the original U&G Theory that influenced motivation to participate in TikTok challenges

The results discussed in this section relate to motivating factors identified in our analysis of the interview data outside of our original framework. An overview of these factors can be found in Table 5.

Table 5
Frequency of codes for categories outside the U&G framework.

Code	Category	*n*	%
Perceived virality	Virality and fame	126	0.047
Fame, not a goal	Virality and fame	77	0.028
Fame, goal	Virality and fame	53	0.020
Model, famous	Virality and fame	50	0.018
Model, broad range	Virality and fame	27	0.010
Model, stranger	Virality and fame	20	0.007
13.1% of all codes fell under the Virality and Fame category			
Get the trend right	Self-presentation	105	0.039
Trying vs not trying	Self-presentation	53	0.020
Social comparison	Self-presentation	24	0.009
6.7% of all codes fell under the Self-presentation category			
Preserve memory of time or place	Preserve memory of time or place	22	0.008
Representation	Representation	4	0.001

Note. *N*= 2074

4.2.1. Virality and fame

The virality and fame category represented 13.1%, or 126 excerpts, with most of our participants **perceiving** that their challenge had already gone "viral," i.e., already had been widely practiced on TikTok. However, their definitions of virality differed. For some, a viral challenge was one they had been seen 100+ times and they perceived it to have been performed millions of times, while others thought that a viral challenge was one performed only approximately a thousand times. In terms of hopes for their own video, fame was seldom a motivation. Often, if users wanted their video seen, it was because they wanted their friends to enjoy it. Nonetheless, they often qualified their statement by saying in terms of success on TikTok and in others' opinions, a video is not successful if it doesn't generate a lot of views. Similarly, they believed that other TikTok users were motivated by the possibility of becoming famous.

4.2.2. Self-presentation

Self-presentation represented 6.7% of the excerpts. Interestingly, interviewees decided to engage with challenges that allowed them to be perceived as laid-back in their performance, to be perceived as skilled at performing, or a combination of both, while some chose challenges that allowed them to show off their humorous side. For example, P11 described her attitude toward participating in and posting challenges on TikTok vs. other platforms:

> On Instagram, on one hand, I would think about what I was posting a lot more than what I would on TikTok. On TikTok, I can go and just post something random if I think it's funny, or if I just– I don't know, like random. On Instagram, I would edit it, and think about it, and pick out my outfit for it and all before I posted it. – P11 ("WAP" Dance)

In contrast, others chose challenges that allowed them to present an image of "perfection." Most frequently, these were dance and skill-based challenges, with our participants identifying that practicing the challenge, filming and re-filming the segments, and editing their content as ways to achieve this perfection. Overall, getting the trend "right" comprised 58% of the excerpts in the self-presentation category, with some relating this motivation to negative outcomes, such as social pressure and more time spent than expected. For example, P17 said:

> I disliked critiquing myself so hard. Trying to get it perfect and look the best. That's what I hated the most. Getting frustrated with redoing it over and over again until you got the perfect one.
>
> – P17 (SZA Dance)

4.2.3. Preserve memory of time or place

Participants identified preserving the memory of a time and or place as a goal for using the app, comprising 0.8% of the excerpts. For example, P31 was motivated to film her challenge to preserve a memory of her time abroad:

> I think it's the location, to be honest. I think it was because the mountains are behind me and just how pretty it was. I thought it was funny. I was just like, "This is like probably the prettiest scene I'm ever going to see, and I want to be making it, dropping in front of it." – P31 ("Renegade" Dance)

4.2.4. Representation

Representation was not mentioned often (0.1% of the excerpts), but when it was, it appeared important to the interviewee. For example, P9 identified representation as an important motive for her participation in a challenge that promoted the concept of Black beauty. She said the following when explaining her motivation to participate in the challenge even though there was a potential for negative repercussions:

> On the good side, it's just a lot of people uplifting each other, but then on the bad side, a lot of people were just making it a bad thing and saying, like, why does this sound have to be specifically for black women or just black people? Why can't other people of different races use the sound and using it as a way to make it seem like we were segregating ourselves. When, in reality, we're making a sound to where black people can have a platform. Because in a lot of other sounds, when black people do use it, their videos are suppressed, and they're not at the top of the sound and all that. It was just a way to have just a sound specifically for black people so that when you look at the sound, you can see people of color. – P9 (Shoot My Shot Challenge)

4.2.5. Positive outcomes vs. negative outcomes

In our analysis, we defined outcomes as the participants' evaluations of their experiences participating in the challenge and analyzed these outcomes separately as they were distinct from the motivation to participate. The positive outcomes from challenge participation identified by our participants included confidence gained both in self and in skills, receiving encouragement, positive entertainment, preserving memory of a time or place, having no negatives associated with the experience, representation, satisfaction with the outcome of the video, and positive time consumption. Negative outcomes included the challenge being more difficult than expected, social comparison to other posters, negative comments, lack of satisfaction with the video, dissatisfaction with time usage, and spending more time than expected on the app. Our analysis found 378 excerpts mentioning positive and 204 excerpts mentioning negative outcomes (Fig. 2).

4.2.6. Factors that contributed to avoidance

Factors that contributed to avoidance included academic or work-related repercussions, extremity of video content, judgement from others, fear of being recorded, lack of confidence in self, lack of confidence

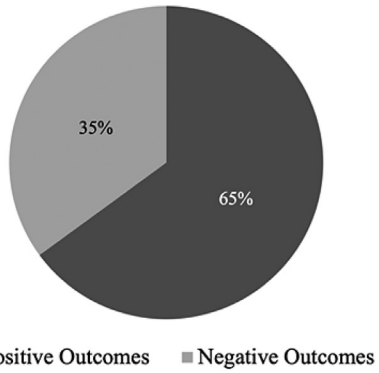


Fig. 2. Positive vs. negative outcomes.

Table 6
Factors contributing to avoidance.

Code	Category	*n*	%
Potential negativity/toxicity	Avoidance	74	0.250
Perceived skills, lack of	Avoidance	45	0.152
Avoidance, general	Avoidance	42	0.142
Sexuality, negative	Avoidance	27	0.091
Avoidance, extreme video	Avoidance	25	0.084
Avoidance, judgement	Avoidance	24	0.081
Confidence, lack of, skills	Avoidance	13	0.044
Strong opinions	Avoidance	13	0.044
Opinion of app, negative	Avoidance	12	0.041
Academic or work-related repercussions	Avoidance	9	0.030
Confidence, lack of, self	Avoidance	8	0.027
Camera shy	Avoidance	2	0.007
Cyber Security	Avoidance	2	0.007

Note. $N = 296$

in skills, fears of cyber security, negative perception of TikTok, fear of negativity, and negative perceptions of sexuality (Table 6).

5. Discussion

5.1. Findings in context

This study applied the U&G Theory to examine users' motivations for participation in challenges on TikTok. From this perspective, our findings were consistent with past research that found various motivations influence media usage. Moreover, we found support for application of the U&G Theory to explain motivations for participation in TikTok challenges.

Entertainment was the most prominent motivating factor for TikTok users in our sample, with the literature supporting our finding of the salience of this factor for both TikTok (Bossen & Kottasz, 2021; Masciantonio et al., 2021; Meng & Leung, 2021; Qiyang & Jung, 2021) and SNS use (Hsu and Lin, 2008; Raacke & Bonds-Raacke, 2008; Whiting & Williams, 2013). More specifically, Masciantonio et al. (2020) found that entertainment was the only significant motive for TikTok use in their sample of participants ranging from 18 to 77 years old, and Bossen and Kottasz (2020) also found that gratification of entertainment was the key driver behind passive, participatory and contributory behaviors among adolescent and preadolescent TikTok consumers. These studies highlight the importance of the entertainment motive for TikTok users across age groups, an observation that is strongly corroborated by the current study.

In the work reported here, convenience was the second-highest need and motivation for users although its importance is not reflected in the current literature on TikTok (Bossen & Kottasz, 2021; Fransico & Ruhela, 2021; Masciantonio et al. 2021; Omar & Dequan, 2021; Qiyang & Jung, 2021). However, this finding is in line with previous research on social media usage (Al-Menayes, 2015; Mikalef et al., 2013). One explanation for this discrepancy may be that most studies conducted on TikTok were quantitative ones in which the researchers did not assess the convenience motive in their surveys. For example, Meng and Leung (2021) did not include convenience as an original measure in their study, but later revised their survey questions to include navigability, modality, and interactivity as motivating factors, all of which were found to be significant for user motivation.

Socialization, the third most salient need found here, is supported in the literature on SNSs (Kircaburun et al., 2018; Hsu and Lin, 2008) and on Tiktok (Bossen & Kottasz, 2020; Meng & Leung, 2021; Omar & Duquan, 2020). Bossen and Kottasz (2020) found adolescent TikTok users produced videos for the app to maintain and build new social networks. In contrast, Masciantonio et al. (2021) found that TikTok use was not motivated by social relationships. However, their study consisted of a wider age range of participants, perhaps indicating that socialization is a prominent motivation for those college-aged and younger, but not for older adults.

Following socialization, seeking and sharing information with others was the fourth most salient need. In contrast to the research conducted by Li et al. (2021) and Ostrovsky et al. (2020), which identified TikTok as an emerging COVID-19 information hub, no TikTok users in this study mentioned the desire to seek or spread information about the pandemic as a motivation. However, it is important to note that our data were collected in the spring of 2021 after the peak of the pandemic. Thus, cultural context may explain the difference in motivations. When the interviewees mentioned seeking information, they often included it in the context of discovering videos that explained how to better complete a challenge or to find a new skill. Interviewees often mentioned desiring this type of information to improve their own content or to be included in trends in which others participated.

In our sample, social support was the fifth most important need, in contrast to literature on SNSs where it was identified as a leading motivation (Antheunis et al., 2013; Leung, 2007; Nadkarni et al., 2012) and TikTok (Bossen & Kottasz, 2020). However, this finding may be a function of the design of the app. On other SNSs, it is common to follow people you know, while on TikTok, users often follow fewer people, more of whom are strangers. Thus, it is understandable that users are less likely to derive support from or provide it to others through use of the platform.

The weakest motivating factor we found for TikTok usage was escapism, again in contrast to previous research (Omar & Dequan, 2021; Meng & Leung, 2020). However, when motivation was examined in context of the type of behavior performed on the app, escapism was often a motive for consuming but not participating on TikTok. For example, Omar and Dequan (2020) found that escapism was a motive for consuming TikTok content and commenting on the content of others but not a motivation for producing content on the app. Additionally, participants often mentioned escape as a motive to distract from the COVID-19 pandemic. This relationship appears to support the hypothesis that times of crisis tend to correlate with a spike in social media use. For example, the COVID-19 pandemic saw a 180 percent increase in TikTok use (Jin et al., 2011; Sun et al., 2020).

Motivations identified outside our original framework included gaining fame or virality, self-presentation, preserving the memory of a time and or place, and representation. Gaining fame and virality was often perceived by interviewees as an important motivating factor for other content producers on TikTok, but they did not identify this motive as important to their own decision to participate in a challenge. This contradiction may be explained by social desirability bias, the tendency of individuals to deny socially undesirable actions and behaviors but admit to socially desirable ones (Zerbe and Paulhus, 1987). The participants in our study were interviewed by two undergraduate student researchers. Thus, to appear socially desirable to peers, our participants may have avoided mentioning "shallow" motivations such as fame.

TikTok users were motivated by self-presentation, echoing Omar and Dequan's (2021) finding that producing behavior is motivated by self-expression needs, results supporting Bossen and Kottasz (2021) and Shao et al. (2019) who also found that across SNSs, self-expression is an important motivator for producing behavior. SNSs that display visual identities have been found to be the most popular for self-expression (Mascheroni et al., 2015). Further, our finding that preserving memory of time and place motivates TikTok use also echoes Omar and Dequan's earlier (2020) study that found archiving was the only motivation that significantly predicted consuming, participating, and producing behaviors on TikTok. As these researchers note, the structure of TikTok lends itself to fulfilling this motive by allowing users to save and compile videos.

Representation is a novel motivation for participating in a challenge found by our study, one that may reflect the strong presence of socialization motives on TikTok, creating a community-focused app. It may also be explained by the broad reach of the "For You" page and the ability of the app's algorithms to connect users to others who share similar interests. The identification of this motive is especially noteworthy as the sample interviewed in this study is not particularly diverse. Representation was mentioned in only 0.002% of the excerpts; if the sample were more diverse, it's likely that representation would be a more prevalent theme.

5.2. Implications

Although in our sample no participants chose to take part in challenges promoting self-harm, past research has found that social media challenges have the potential to do so (Atherton, 2020; Al-Othman, 2015; Avery et al., 2016; Grant-Alfieri et al., 2013; Khasawneh et al., 2019a,b; Khasawneh et al., 2021b; Luxton et al., 2012; Roth et al., 2020; Roth et al., 2021; Silva, 2016;). However, the literature has also shown that even those who took part in risky social media challenges were not motivated by self-harm (Khasawneh et al., 2021a,b; Abraham et al., 2022). These findings suggest effective interventions should focus on increasing risk awareness as harm is often unintentional. One way to do so is to create campaigns targeting salient motivations for TikTok use and show that these motivations may not be fulfilled through participation in a dangerous challenge.

In addition, factors identified as salient for avoidance included academic or work-related repercussions, extremity of video content, judgement from others, fear of negativity, fear of negative comments, and negative perceptions of sexuality. Thus, another effective way to reduce participation in a harmful challenge may be to emphasize any relevant avoidance factors in an advertising campaign. For example, if a challenge promotes a behavior that results in academic repercussions, an effective campaign may emphasize how subjects faced consequences, like school suspension, after participating in it. Subjects also frequently noted being drawn to modifiable challenges, especially those that could be modified to be easier to perform, more creative, or safer. Thus, the creation of guidelines for promoting positive modifications of social media challenges may be effective in reducing risk. For example, in 2018 the KiKi Challenge, a dance that involved jumping out a moving vehicle, went viral, resulting in injury to many while performing the dance. To address this hazardous challenge, late-night host Jimmy Kimmel and rapper Ty Dolla $ign created a safer alternative called The Light Challenge. Instead of hopping out of vehicles, it asked participants to dance safely behind the wheel while holding up one hand in an "L" shape (Jackson, 2018).

Finally, if the interviewees perceived a significant number of avoidance factors, they often referred to social belonging as necessary for their own motivation. Thus, one effective way to reduce participation in a negative challenge could be to advertise that participation in the challenge does *not* bring social benefits.

It is important to note that most TikTok users, like those in our study, are between the ages of 16 and 24 (Statista, 2021). Previous research has emphasized how adolescence is a period of heightened vulnerability for risky behavior, supported by a significant increase in reward salience around the time of puberty (Ernst et al., 2006; Spear, 2000; Steinberg, 2004). In addition, the cognitive-control network, which regulates these impulsive behaviors, is not fully developed until early adulthood (Casey et al., 2005). Thus, past research focusing on this biological perspective suggests that attempting to change how adolescents view risky activities, like participation in a harmful challenge, through educational efforts may not be effective (Stienburg, 2007) because mature decision-making takes time to develop and cannot necessarily be taught. Instead, a more effective strategy might be to focus on limiting opportunities for immature judgment. Strategies such as expanding access to mental-health services, using TikTok's algorithm to block the spread of harmful videos, and strictly enforcing consequences (like suspension of accounts that promote viral videos) may be the most effective ways to prevent the spread of harmful TikTok challenges. Following a congressional hearing in October 2021, TikTok has taken steps to increase content moderation (Korn, 2022). Notable additions to the company's policy include a new "dangerous acts and challenges" policy, a broadened approach for moderating disordered eating content, a company-sponsored campaign in which creators ask viewers to "stop, think, decide and act" when viewing content, and redirection of hashtags associated with dangerous challenges.

Finally, participants in our study identified more positive outcomes than negative ones resulting from their participation in challenges on TikTok. There is evidence to support that those motives for participation in challenges also enhanced the well-being of participants. Masciantonio et al. (2021) analysis of SNSs found that user motivation better explained an app's impact on wellbeing than the effect of active and passive use of the SNS and its architecture. If users were motivated by information seeking and social relationships, active use of an app positively affected their subjective well-being. However, if use of an app was motivated only by entertainment, active and passive use had no relationship to the user's wellbeing. In our sample, interviewees were heavily motivated by social factors, suggesting that active participation in challenges on TikTok may have the potential to increase wellbeing for users.

5.3. Limitations and future directions

Although our study offers insight into the factors that contribute to college students' participation in TikTok challenges, it has several limitations. First, although U&G Theory has been widely used, it faces some fundamental criticism. Foremost, the motives identified are often more reliant on content analysis from researchers than behavioral data driven by research participants, resulting in limited explanatory power (Rayburn, 1996). Explanatory power is further limited by the conceptual ambiguity surrounding the theory's framework and major concepts (Swanson, 1977). Additionally, the U&G Theory focuses on the individual, making it difficult to analyze societal and cultural influences on media use (Elliott, 1974). Despite these limitations, the U&G Theory continues to have appeal because of its applicability to developing areas of communication (Li, 2005). The theory is also easily extended as it allows for variables to appear as research is conducted and, thus, is advantageous in the analysis of rapidly developing technologies (Ruggiero, 2000), such as TikTok.

In addition to the framework used, our study is limited by its pool of participants. Our sample was recruited using convenience sampling, a method resulting in a relatively small, homogeneous pool of participants. Although such samples are common in interview-based studies, the pool limits the generalizability of the findings. Further, all participants were interested in expressing their internal motivations for participating in the challenges, making our findings narrowly limited to those open to talking about their motivations. As many users may not want to express their motivation, it is possible our study overlooked important motivations for participating in challenges. Future work would benefit

from evaluating how personality affects motivation for participation in challenges. Another limitation is that we did not restrict participation to those who performed a specific challenge. Possibly because of social desirability bias, many subjects who self-selected to participate chose to speak about challenges they had positive experiences with. Moreover, because the subjects chose to speak at length about TikTok, many of them were regular users and felt a positive bias towards the app. Future research should consider a broader range of participants.

Our findings were additionally affected by the context in which the study occurred, the COVID-19 pandemic. The social and cultural ramifications of the pandemic likely impacted subjects' motivations. Although this environment provides a novel perspective, future research may identify different motivations as a result of a different global context.

This study was also limited by its design. The semi-structured interview format meant participants reflected on their performance of TikTok challenges after-the-fact, sometimes months after their completion of the challenge. It is possible that interviewees could have misrepresented motivations when reflecting on their experiences prior to participating in a challenge. An alternative study format in which subjects journal about their motivations real-time could address this limitation. In addition, journaling could minimize the issue of social desirability bias during interviews as participants would not have to explain undesirable motivations to peers.

Finally, future work would benefit from quantitatively validating our study's findings, particularly our novel findings. Although many users reported positive effects on their well-being as a result of engaging with the app, quantitative studies specifically assessing mental health outcomes in relation to social media challenge participation are needed. We also believe the literature would benefit from testing and analyzing our study's recommendations for interventions that target risky TikTok challenges.

6. Conclusion

Our findings suggest that the U&G Theory serves as a useful framework for explaining why college students engage in challenges on TikTok, a unique and rapidly growing social media platform. Specific motivations identified by our analysis, in order of salience for the users, included entertainment, convenience, socialization, seeking or spreading information, social support, and escapism. Relevant motivations outside of the original framework include seeking virality or fame, self-presentation, preserving a memory of a time or place, and representation. These motives illuminate ways for slowing the spread of harmful social media challenges.

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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Appendix A

List of Interview Questions Asked

Section 1: Background

1. You were identified as having participated in a TikTok trend. Please tell us a little bit about the trend you participated in.
2. When did you film your video of the trend?
3. Where did you first find out about the trend?
4. What was it that first caught your attention about the trend?
   a) Why do you think this caught your attention?
5. Were there any resources listed with the content posted about the trend?
6. Did you see or read anything about the trend outside of TikTok?
7. Did any of the images include: graphic material, weapons, or harm to others?
   a) If Yes: Was there any sort of advisory warning posted before viewing the content associated with the trend?

Section 2: Perceived Virality

1. At the time you filmed your video, how many people do you think have participated in this trend already?
2. How many posts did you personally watch before you filmed your version of the trend?
3. Did you view any of these posts multiple times?
   a) Why did you view that post multiple times?
4. How did viewing the posts make you feel?

Section 3: Characteristics of Model and Observer

1. Overall, was there a certain type of person that participated in this trend?
2. Overall, what seemed to be posters' attitudes towards this trend?
3. What types of things do you think were being said about people who participated in this trend?
   a) Why do you think that was said?
4. What similarities did you see between yourself and the people who posted this trend?
5. What differences did you see between yourself and the people who posted this trend?
6. Did you personally know any other people participating in the trend at the time you decided to post it?
   a) If so, who?

1. Did anyone discourage you from filming your own version of the trend?
2. Did anyone encourage you to film your own version of the trend?

Section 4: Ability to Closely Match the Model Behavior

1. Prior to filming, did you feel confident in your ability to successfully make the TikTok?
   a) If Yes: What made you think you could replicate the trend?
   b) If No: What made the trend seem difficult to replicate?

Section 5: Avoidance

1. Did you experience any initial hesitation prior to filming the video?
   a) If Yes: What caused your hesitation?
2. Did you think there could be any potential negative effects that may have resulted from posting this trend?

Section 6: Approach

1. Did you think there could be any potential positive effects that may have resulted from posting this trend?
2. What was your motivation to participate in the trend?

Section 7: Consequences of Behavior

1. Who did you think would see your video when you put it up?
2. How many times was your post viewed and shared?
   a) How did this make you feel?

1. After filming, how easy did you find it to make your TikTok?
   a) Was it more or less easy than you expected?

1. What did you like about filming your version?
2. What did you dislike about filming your version?

3. How closely did you replicate what you saw in other videos?
   a) Why did you choose to replicate it that way?

1. How successful do you think your video was?

Section 8: Closing Questions about Challenge

1. What do you wish you had known about the trend before you participated?
   a) Why do you wish you would have known that?

1. What might have prevented you from filming your version of the trend?
   a) Why would that have prevented you?

1. Do you have any advice for others who are interested in participating in the trend?
2. Do you have any other thoughts that you'd like to share about your participation in the trend?

Section 9: Overall Questions about TikTok

1. What do you like about watching TikTok?
2. What do you dislike about watching TikTok?
3. What type of videos do you gravitate towards making on TikTok?
   a) Why do you gravitate towards those types of videos?

1. What do you like about making TikToks?
2. What do you dislike about making TikToks?
3. How do you feel about your time usage on the app?
   a) What makes it so addictive?
   b) What helps you manage your time on the app better?

Appendix B

List of Example Follow-up Questions

Section 1: Background

1. What sorts of resources did you see associated with the trend?
2. Where did you see or read information about the trend?
   a) What sort of information did you see or read about the trend?

Section 2: Perceived Virality

1. Why did viewing the posts make you feel that way?

Section 5: Avoidance

1. If subjects noted negative effects to participation: How did the negative effects you described affect your decision to participate in the trend?

Section 6: Approach

1 If subjects noted positive effects to participation: How did the positive effects you described affect your decision to participate in the trend?

Section 7: Consequences of Behavior

1. Why did you like this aspect of filming your version of the trend?
2. Why did you not like this aspect of filming your version of the trend?
3. How do you define success in this context?

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