

Short-Form Video and Middle-Aged Users: A Scoping Review and Research Gap Analysis

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Abstract:

This rapid scoping review outlines the range, distribution, and themes of conducted peer-reviewed articles among middle-aged adults' (aged 45–64) usage of short-form videos. Searches of Scopus and Web of Science (English, 2020–2025), retrieved 343 articles, of which 8 articles met the inclusion criteria. Finding suggests an increase in publications in the previous 5 years, geographically centered in China and the US. Research methods include qualitative methods like ethnography, quantitative study approaches like surveys, content analysis, and mixed methods. The identified studies mainly focus on the influence and the usage of SFV on middle-aged individuals, both benefits like reducing loneliness and improving well-being, as well as potential risks of problematic use and further digital addiction. Active content creation and participating in short-form videos not only helps middle-aged users to maintain social connections, but also helps them to express themselves, and moreover, fosters the sense of social belonging, which all contribute to a positive perspective towards ageing. Our research reveals that the middle-aged user group is an active but under-researched short-form video participants. Future research should broaden the geographical and cultural research background, as well as adopt a more longitudinal research approach, to examine middle-aged users' short-form video engagements from a more comprehensive perspective.

Keywords: Short-form video, Middle-aged adults, Social media use, TikTok

1. Introduction

Social media has remarkably influenced every aspect of our lives. Conceptually, it is an internet-based

communication channel that enables opportunistic interaction and selective self-presentation with broad or narrow audiences, in both real-time and asynchronous ways, for everyone [1]. Among all, the short-

form video platform has become a new digital phenomenon that redefines the way individuals access information and engage in social interaction [2]. SFV is not only an extension of social media but also a new media formation that has unique algorithmic recommendation systems and features. SFV platforms like TikTok, Douyin, etc. have rapidly expanded in popularity and across societies in recent years, reconstructing the way users consume media and the ecosystem of content. SFV has become a dominant form of digital media. In China, there are over 1.04 billion short-video users, accounting for 93.8% of the total number of internet users [3]. It reached a scale of all highs, especially during the COVID-19 pandemic, and has maintained its wide popularity even after the pandemic. In August 2020, Douyin achieved 600 million daily users, which represented approximately 50 % growth compared to the beginning of the year [4]. Globally, TikTok hit 315 million downloads in the first quarter of 2020, setting a new record in mobile application history [5]. The popularity of TikTok and Douyin has contributed to the emergence of other SFV platforms, such as YouTube Shorts and Instagram Reels, indicating a clear trend that SFV has evolved into a mainstream form of content, which has motivated extensive research on user behaviors, while middle-aged users still remain a distinctive but under-researched group.

According to the Cambridge Dictionary, ‘middle-aged’ has been defined as a stage in life that is no longer young but not yet old, and normally refers to individuals aged between 45–60 [6]. Meanwhile, the range of 50–65 as a grouping category has also often been adopted by academic research [7,8]. To date, media research—especially social media research—normally centers on younger generations (aged under 45), and gradually on older adults (aged over 60 or 65), yet it neglects the middle-aged adult group, not to mention research on SFV [9]. Lachman argues that middle-aged adults are a group that are ‘often omitted’ from research [10. p. 327]. However, this demographic is worthy of research attention, as they are becoming a significant part of SFV users today. Pew’s research shows that, in the US, a significant minority of middle-aged users, who are 40% of adults aged 30–49 and 26% aged 50–64, report using TikTok [11]. Meanwhile, market reports on Chinese short-video use reveal that individuals aged over 50 represent a new significant demographic [12]. Younger-old Chinese adults exhibit a higher tendency to engage in digital consumption and short videos [13]. Instead of looking at the middle-aged group from a binary perspective—as a specific cohort that is neither the ‘digital native’ nor the ‘digital immigrant’, which lacks empirical support—focusing on digital skills, experience, and background will allow researchers to ex-

plore the differences more precisely [14, 15]. Empirical work reveals that users of different ages have various use patterns and gratification levels to different features, as well as different social media expectations and responsibilities [16, 17].

However, while youth and older demographics’ digital participation have been well reviewed, the middle-aged demographic becomes the middle part of the age distribution that is hourglass-shaped. In general, research tends to analyze the middle-aged demographic with older adults. Studies on digital participation suggest that the use of social media for this demographic is related to their life quality and mental well-being. While in terms of research on SFVs, current research mostly concentrates on adolescents/young adults. Systematic and scoping reviews on TikTok mainly focus on adolescents and younger users, and tend to develop from perspectives such as mental health, Problematic use, and health communication perspectives [18, 19, 20, 21]. Meanwhile, there are also increasing scoping and systematic reviews on older adults’ digital engagement, but mostly on a broader digital technology scope or social media [22, 23].

Overall, SFV is a rapidly developing research area, but it mainly focuses on certain demographics, where middle-aged users are rarely isolated [24]. Through researching this cohort specifically, we will be able to gain a more comprehensive understanding of the SFV usage through a life course perspective. This rapid scoping review aimed to synthesize the research of current SFV and middle-aged cohorts, more specifically, to map what is known about the current critical gap between youth-centric social media studies and research on the use of digital technology by older adults. RQ1: What is the extent, range, and distribution of peer-reviewed studies on SFV and middle-aged adults in the past five years?; RQ2: What are the reported thematic findings about middle-aged users’ SFV use? By isolating adults aged 45–64, this review provides a cohort-specific synthesis, revealing the patterns of midlife individuals, further integrates cross-disciplinary evidence through a life-course perspective, and proposes a more midlife-centered research agenda, as well as implications for future platform design.

2. Methodology

This study applied a rapid scoping review approach, which is grounded in a “transparent, scientific, and reproducible” method that supports the synthesis of knowledge in a streamlined and accelerated way [25, 26]. Scoping reviews are used to map the key concepts that can support the research field and identify the gaps in accordance with the research aim. They are also useful when evaluating

an area that is emerging [27, 28]. A rapid scoping review, having the same purpose as a scoping review, follows a core principle of balancing timeliness and breadth. Our review will be conducted following the five-step framework provided by Arksey and O'Malley, identifying the research questions, identifying relevant studies, selecting studies, charting the data, and summarizing the results [29]. Followed the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist, referring to the identification, screening, and inclusion of research for this review, aiming to ensure a high level of systematic conduct and methodological detail [30]. To adapt to the sensitive time range of the rapid scoping review, predefined streamlined measures in line with the guidance provided by Cochrane Rapid Reviews and WHO Rapid Review [31, 32]

2.1 Eligibility

The eligibility criteria of this rapid scoping review are guided by the elements of the "Population-Concept-Context" framework [33, 34]. In the *population element*, to achieve operational consistency in searching and eligibility, and to align with the indexes of the social-science and medical/health databases, we set the age group at 45–64. Where primary studies report nearby bands, like 45–60 or 50+, only those in which data for 45–64 could be separated or derived were included. Primary studies that were published with reported age ranges but with no details were excluded, to isolate our research group, avoiding categorizing the middle-aged population under the broad concept of 'adults' or 'older adults'. For the *Concept element*, Short-form video (SFV) platforms, which are defined here in this research, refer to those algorithm-recommendation-based, mobile applications that show video content in full-screen, and can be swiped to play, for instance, TikTok, Douyin, Reels, and Shorts [35, 36, 37]. As for the *context element*, considering the rapid growth and development of SFV, we limited the time frame of our research to the past five years (2020–2025) to obtain the most recent evidence while ensuring a feasible scope for the rapid scoping review. We included articles in English with no country background limitation. Empirical quantitative, qualitative, and mixed-methods studies with us-

er-level attribution, including peer-reviewed studies, were included. Commentaries, reviews, or other papers that do not include primary empirical research results were excluded from this review.

2.2 Source

limited our searches to two databases, Web of Science and Scopus, as suggested for rapid review. The research was restricted to peer-reviewed, published articles to ensure quality, and grey literature was excluded. Searches covered January 2020 to October 2025. In line with PRISMA guidelines, the search strategy combined platform names (e.g., 'TikTok'/'Douyin', 'Reels', etc.), concept-terms (e.g., 'short-form video', 'short video'), and population terms (e.g., 'middle-aged', 'midlife', '45-64', etc.).

3. Results

3.1 Study characteristics and distribution

The literature was searched within two electronic databases and resulted in a total of 343 initial articles. Out of those 343 articles, 121 articles were identified as duplicates and were manually removed by the author before the screening of the articles' abstracts, leaving 222 articles to be screened. Out of these 222 references, 214 were excluded for not providing direct evidence for middle-aged on short-form video use, including mixed-platform analysis without SFV-related results, intervention or education uses of short video, content-only research without target user group analysis, rough age bands with no midlife conclusion studies, leaving a remaining of 8 articles for this review as shown in figure 1, which is relatively limited. Given the limited research that focused specifically on middle-aged adults' SFV use, included studies that examined SFV use as both the primary focus or as a component of broader Internet or social media use, as well as those that substantially represented this population, like when combined with older adults. This is consistent with scoping review methodology that aims to map all evidence regardless of the study focus [29]. This strategy revealed a critical gap in current research, that is, the lack of isolated middle-aged user analyses in many studies.

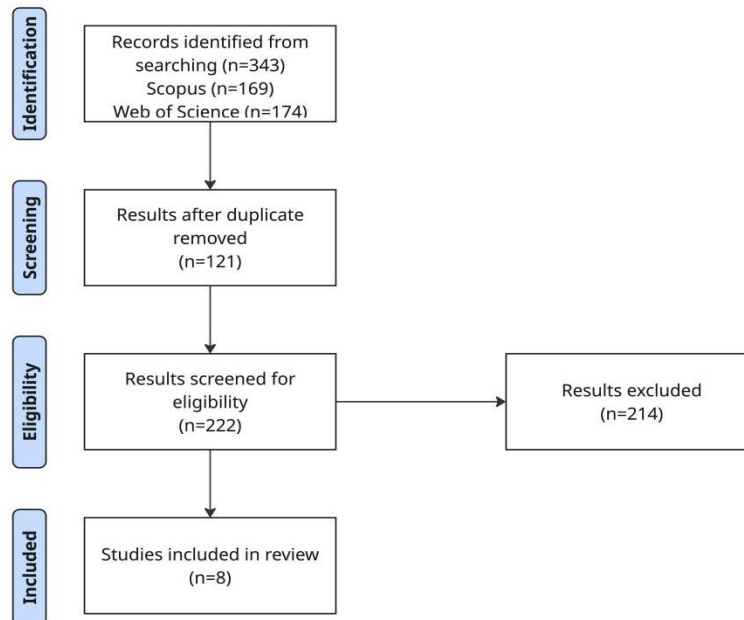


Fig. 1 PRISMA flow diagram

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The review shows that the number of studies that address SFV usage among the middle-aged demographic has grown recently, with over half of the research being conducted in 2024 or later, possibly indicating an emerging and rapidly growing interest in investigating middle-aged users' SFV platform engagement. The earliest publication about this topic was in early 2022. Geographically, the research included in this rapid scoping review is toward East Asia, and heavily centered in China, with five out of eight studies focusing on Chinese users, reflecting the popularity of SFV platforms, as well as an increasing research interest in the context. The remaining research investigated middle-aged SFV users in the Western context, including the United States and Europe, or on cross-cultural online communities. No studies were found that focus on other regions, revealing a gap in geographic diversity.

In terms of methodology, the study designs are diverse. The majority (n=5) of research addresses quantitative research methods by applying survey or cross-sectional analyses of user data to collect and investigate middle-aged SFV users' usage and effects. The data of the survey and cross-sectional analyses research are collected from a validated scale and statistical modeling of a large national dataset. Sample sizes in these surveys ranged from 200 participants to large national-level samples of over 8,700 adults. One of the studies applies a mixed method to explore users' motivation by combining the questionnaire survey with follow-up in-depth interviews. Another research performed a content analysis of TikTok

content with aging-related hashtags. Furthermore, there's one qualitative ethnographic study that conducted a six-month observation on middle-aged female users in an online TikTok fan community. It is noteworthy that even in the study that is not exclusively on SFV often analyzed as a unique platform, as it's particularly popular among middle-aged users. Among the included studies, middle-aged and older adults are mostly the research focus, which addresses the drawback in social media research that has been biased towards younger users for a long time. Several authors clearly point out that compared to the large amount of studies on younger users, research on middle-aged and older users is extremely limited. Several studies don't isolate the middle-aged age band entirely, aged 45-64; most of them treat adults over 45, or middle-aged and older, as a combined group, but all included studies have provided data and outcomes specifically related to the middle-aged group. Selected studies cover multiple disciplines, including public health (examining users' mental well-being), psychology, communication and media (content and community analysis), information technology, and sociology, indicating the cross-disciplinary characteristic of this topic, which collectively outline the current extent and scope of research regarding middle-aged adult users' SFV engagement.

3.2 Analysis of included studies

Included studies can be categorized into a few thematic domains, which highlight how middle-aged adults use

SFV platforms and what influences their engagement.

3.2.1 Usage pattern, motivation, and behavior

Middle-aged adult users appear to have distinct usage patterns and motivations on SFV than younger demographics. A mixed-methods study from China revealed that for middle-aged and older adults, information-seeking is the primary motivation for them on SFV platforms [38]. These users prefer to use SFV as a way to access content on news, practical information, and learning opportunities, rather than just entertaining content. Moreover, the research indicated that users' motivations vary from their social and demographic characteristics, like age, gender, and educational backgrounds. But overall, information satisfaction can be regarded as a core motivation for this demographic.

3.2.2 Content creation

Unlike the stereotype of the youth-dominant narrative contents on TikTok (Douyin), middle-aged and even older adult users are also active content creators on SFV platforms. One of the studies in China focuses on middle-aged and older users' video-creating intentions through a life-span development perspective [39]. They found that the experiences related to ageing, such as experiencing losses in social roles, or personal growth and self-improvement during midlife, can inspire the internal motivation of individuals (like feeling the 'need to be needed'), which further motivates them for content creation.

3.2.3 Mental health and well-being outcomes and problematic use

Several studies investigate the influence of SFV engagement on middle-aged users' mental health and well-being; findings suggest that SFV usage has both positive and negative influences on middle-aged users. On the one hand, a nationally cross-sectional research on Chinese adults aged above 45 finds that SFV usage is associated with lower depression symptoms among functionally dependent individuals [40]. Meanwhile, the research demonstrates that SFV platforms provide an engaging channel that helps users to maintain social connections through SFV content to improve their moods, further improving interpersonal relationships as a mediating role. Middle-aged users can also achieve joy and emotional satisfaction through SFV platforms in a unique way. An ethnographic research on female individuals, who are aged between 40 and 60 and engaging in a TikTok fan community around a younger male content creators (the 'WhiteyNation' community), showed that users unexpectedly rediscovered and expressed their sexual desire, and the source of playfulness

and excitement in midlife through their online communication [41]. Another content analysis research on the hashtag on the trend of 'Positiveaging' on TikTok shows that older adults are using the platform to actively deal with aging, which helps to increase their self-esteem and sense of purpose [42]. Contents with the hashtag 'Positiveaging' normally include middle-aged and older adults, and describe aging in a positive way, which further helps creators and audiences hold a positive attitude toward aging.

On the other hand, middle-aged users' overuse and problematic use of SFV can cause negative effects on their physical and mental health. One of the included studies reported that mental stress experienced in midlife is positively related to problematic use, which means that individuals that under excessive stress tend to be addicted to SFV in an unhealthy way [43]. Both longer usage time and the flow experience contribute to a higher risk of addiction using behavior. Similarly, another research found that features like an algorithmic recommendation system, user-interactive and entertaining content will foster a strong sense of flow experience and social belonging, which further predict middle-aged individuals' addiction behavior [44]. These findings are consistent with broader research on digital addiction, which emphasizes that it's not youth-only; middle-aged and older adults, who were normally ignored by previous research, are not immune to this risk.

3.2.4 Social connection and community

Included research indicates that SFV platforms play an important role in fostering social connections and communities. SFV platforms like TikTok allow users to not only connect or reconnect with their old friends like previous social media, but also let users build connections based on people who share the same interests, across age and geographic boundaries. Like Nilsson's ethnographic research shows, the same interest (the like for a younger male content creator) brings them into the same online community, where they can find peer support and joy [41]. Also, 'Positiveaging' content on TikTok provides a sense of belonging and recognition for individuals who are participating in this trend, which possibly helps to resist the sense of social isolation that they are experiencing [42]. The cause of middle-aged individuals' problematic use also proves that feeling a sense of social belonging is one of the reasons why individuals are deeply engaged with SFV applications [43, 44]. In general, it shows that SFV usage for middle-aged adults is not just for accessing information, but also for positive social participation.

4. Discussion

4.1 Reframing middle-aged adults in digital media research

All of the themes mentioned in the previous section show that SFV plays an important role in multiple aspects of middle-aged individuals' lives. This rapid scoping review aims to investigate the current research landscape in middle-aged individuals' SFV usage, to fill the critical gap between youth-centered social media research and the emerging older users' digital participation research. Our research demonstrates that this gap is only just starting to be filled, as there have been only 8 relevant studies in the past five years have been found. Several of the included research points out that, to date, middle-aged and older adults have been omitted in digital media research. According to a widely cited systematic review of early TikTok research also revealed that current research tends to focus on content analysis, yet limited age-relevant research, making it difficult to learn the middle-aged cohort's specific usage behavior [2]. Moreover, a recent systematic review on TikTok problematic use and mental health also confirms that most included samples are from adolescent groups and university students [20]. However, our included research suggests an important point that middle-aged users are an active and necessary user group on SFV platforms, with their unique usage motivation, pattern, and outcomes; they are worth researching.

A report on Chinese SFV use supports the view that this specific demographic appears to have distinctive characteristics, as they emphasize the practical value of usage, rather than just entertainment [3]. Along with their specific in-between position, these all contribute to a unique way of social media interaction, compared to the other demographics. Included research demonstrates that there is a sharp contrast with younger users' normal usage pattern and motivation, that is, entertaining and social expressing [38]. Correspondingly, an age-comparative research in the US on younger and middle-aged users' social media platform usage reveals the difference as well. Compared with 'emerging adults' in their 20s, middle-aged adults (50-60 years old) tend to use their familiar platforms more, like Facebook, rather than relatively new SFV platform TikTok [45]. This study proves that the gap of current research on middle-aged individuals' SFV usage, yet with the limited number, recent studies are starting to reveal how are middle-aged adults who's aging between 45-64 use and experience SFV platforms, that is they are using SFV as a practical tool to meet their needs for utility and information, than just for trendy socializing.

4.2 The paradoxical influences of SFV in mid-life

Our research shows that even though the current evidence is still limited, a clear picture has emerged that is middle-aged demographic is actively engaging with SFV platforms, and it's important to research their usage. Same as younger users, middle-aged SFV users are also attracted by the rich content and social interaction on TikTok (Douyin) and other SFV applications, while they are using SFV platforms with a different mindset and context in their lives. Middle-aged users tend to bring their life experience into their SFV participation, which further motivates them to create content that is driven by generativity. Wang et al. mentioned that according to a survey on Chinese middle-aged Douyin users shows that collectively they produced over hundreds of millions of videos, and attracted billions of likes, which indicates their contribution to the SFV platform contents [39]. It can be explained from a lifespan development perspective that while older adults are looking for life meaning and making contributions, the SFV platform has become a new channel for their self-expression [39]. Younger users, by contrast, tend to explore their identity and be affected by their peers, while middle-aged users' identities are more stable, and their SFV platform usage is more about reinforcing the existing values and rekindling their forgotten self [41]. Promoting this creative expression on Chinese middle-aged and older users can not only satisfy their psychological needs, but also benefit those SFV platforms that aim at the 'silver economy' [39]. However, research on this aspect is still limited; for instance, the external generative motivations, barriers, and support on content creation, etc., more comprehensive research is needed.

Included research shows that SFV platforms can be regarded as a method for positive ageing intervention. A supportive community and positive ageing-related content on TikTok can contribute to a healthier perspective on ageing [41, 42]. Li and Wang also demonstrate that SFV platforms can be used as a digital intervention method for older adults or functionally dependent, vulnerable individuals' mental health. With all these positive influences, our research also reveals the potential risks and challenges that come with the growing use of this demographic [40]. Overuse and problematic use are one of the main potential risks for middle-aged users. As mentioned above, the features of SFV applications make it easy for users to experience the immersive feeling and the sense of social satisfaction, but also cause a more addictive usage pattern, which is not only among younger users but also the middle-aged demographic. There is evidence showing that feeling stressed in life, combined with escapism, can be

seen as the driving factors for middle-aged individuals [43, 44]. While experiencing stress in real life, entertaining content on SFV platforms can be seen as a way to relieve their stress, but it may also cause further compulsive habits [44]. From a life-course perspective, middle age could be seen as a 'pivotal period', where both gain and loss happen, and individuals at this stage may encounter both stability and changes [10, p. 331; 46]. Research found that about 1/3 of individuals in the mid-life stage could be seen as being 'sandwiched' between generations, while they may experience the conflict on time and energy between work responsibility and family caregiving [47, 48]. These different stressors that middle-aged users may face will further lead them to be addicted to the digital world as a form of escapism. Moreover, the sense of social belonging can also be seen as a factor that causes addictive behavior, while they are looking for social belonging on SFV platforms, in turn, it may cause problematic use [44]. Another challenge is the misinformation on SFV platforms. Even though, according to Nugent's research, middle-aged and older individuals are easily influenced by the misinformation on YouTube, as TikTok gradually became popular among older adults, it's important to develop certain solutions to make sure the content they see is correct [45]. Our study demonstrates that it is important for researchers, policy-makers, as well as application developers to adjust the current development strategy that mainly focuses on younger users, and design a safer, inclusive, and accessible SFV environment that considers their specific needs.

5. Conclusion

This rapid scoping review aimed to collect evidence regarding middle-aged adults' engagement with SFV applications. This study identified 8 peer-reviewed articles published during 2020-2025 and highlighted that middle-aged individuals' SFV usage is gradually emerging in the research area, which has been dominated by younger adults for a long time. Middle-aged and older adults growingly use SFV platforms for different purposes, from seeking information and creative self-expression, to looking for communities experiencing social belonging and improving self-value and satisfaction. This rapid review found that using SFV applications for middle-aged individuals provides both opportunities that provide a channel for their social connection, self-empowerment, and benefit their health and wellbeing, and challenges (problematic use, and influence of misinformation), which all contribute to a unique usage pattern.

However, the current studies remain limited in scope. Restricted our research database to two and peer-reviewed articles in English only, which may lead to the missing

of certain relevant articles, especially in different languages, or those grey articles. Besides, studies that didn't fully isolate the age range 45-64 (e.g., included research about adults aged 40+ or 45+) have also been selected, which may blur the accuracy of the results that are specifically about middle-aged users. Generally, this rapid scoping review examined current evidence of research on middle-aged individuals' SFV engagement, explored the research outcomes and research gaps, but due to the limited number of studies, this study does not represent the research themes fully and does not draw a defined conclusion.

Overall, this rapid review suggests more comprehensive and diverse studies are needed in the future to fill the research gap between current youth-centric social media research and older adults' digital participation. Future research should broaden the geographical and cultural perspectives beyond China and the US. It should also adopt more precise research approach, including longitudinal and experimental design, and report disaggregated findings for this specific midlife cohort, so as to deepen our understanding of the usage, experience, and influence of SFV specifically among middle-aged adults. Furthermore, future design work and SFV-based interventions should focus on midlife-specific usage characteristics and contexts, as suggested among the included studies, for instance information seeking, community-building, and the risks of problematic usage and misinformation.

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