

Couple-level usage of social media and fertility intentions for the second or third child: evidence from China

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Abstract

In the context of declining fertility rates China implemented the universal two-child policy in 2016 and the three-child policy in 2021. This study focuses on couples with one or two children and examines the relationship between use of social media (short videos and WeChat Moments) and intention to have another child in the next two years. Use of social media is likely to promote public policies, disseminate information, reflect public opinion, build social support, and engage in online consumption, although it might also be for entertainment and communication. Using data from a dyadic sample of 1864 couples from the 2022 China Family Panel Studies, we see that most couples with one or two children do not plan to have a child in the next two years. Looking at within couple differences we find that men tend to have higher fertility intentions than women. Couples use short videos and WeChat Moments frequently. Regarding the use of short videos, women are slightly more likely to plan to have a child when both members of the couple use them frequently, whereas men's fertility intentions are not correlated with that. In contrast, men's fertility intentions are significantly higher when both members of the couple post on WeChat Moments frequently. Women also show a slight intention increase when both partners frequently use it. However, both men and women are more likely to plan to have a child when the couples use frequently WeChat Moments or short videos. The paper discusses possible explanations for these trends.

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Motivation

It has been claimed that China's One-Child Policy is responsible for successfully curbing population growth and boosting per capita GDP growth, effectively alleviating demographic pressures on socio-economic systems and resources (Starbird, Norton and Marcus, 2016). However, China's fertility rate plummeted to just 1.6 children per woman in 2015, well below the population replacement level of 2.1 (Fincher, 2018). To address increasing demographic challenges, the Chinese government successively implemented the universal two-child policy in 2016 and the three-child policy in 2021, while striving to foster a societal culture that encourages childbearing across the entire society. It is thus important to examine the factors associated with intentions to have a second or third child among those who have become parents.

Meanwhile, based on the Chinese government restricting access to numerous overseas platforms, domestic internet companies have provided a multitude of social media platforms¹ featuring localised technological and cultural characteristics (Xiong and Liu, 2023). China's social media has government accounts, mass organisations and state-owned media outlets for propaganda campaigns, promoting the official narrative and disseminating mainstream values (Qin, Strömberg and Wu, 2017). In recent years, studies have discussed that the use of social media and the two-child and three-child policies dissemination and public attitudes towards two-child and three-child policies on social media. This may naturally link social media to fertility research in China.

To be specific, we focus on two different types of social media, i.e., short videos and WeChat Moments, in relation to fertility intentions for second and third children in China. Firstly, due to big data, algorithms and other intelligent technologies, short-video platforms work to amplify content related to everyday parenting routines and the daily lives of families with two children, which generates a digital portrait of contemporary Chinese parenting practices, more likely to reach its target audience, i.e., people with children (Liao and Wang, 2024). Based on social comparison theory (Wood, 1996), social comparison involves processing information about one or more others in relation to oneself, including both upward and downward social comparisons. The presentation of exaggerated or understated parenting narratives and displays of affluence within short videos may undermine or reinforce the subjective social class identity of parent groups. People exposed to such content in short videos may be more likely to intend to have more children or fewer children. Secondly, whilst an increasing number of mothers may publicly share well-organised and

¹ The scale of social network users in China reached 1.107 billion, accounting for 98.6% of the total internet population (CNNIC, 2025); WeChat, Douyin, Kuaishou, QQ, Xiaohongshu and others are typical social platforms frequently used by Chinese netizens; China's short video users and online gaming users are 1.068 billion and 584 million individuals respectively, accounting for 95.1% and 52% of the total internet users; the number of female gamers is growing rapidly, with women accounting for 48.0% of online gaming users; China's internet users are predominantly young and middle-aged. Those aged 10–19, 20–29, 30–39, and 40–49 account for 13.7%, 12.8%, 18.9%, and 16.3% respectively; while the cohort aged 50 and above constitutes 33.5% of the total (CNNIC, 2025).

informed parenting methods like carefully planning a child's study schedule, dietary arrangements, and cultivation of interests on WeChat, existing parents may also advocate filial piety and traditional Chinese maternal values within their WeChat Moments², showcasing their familial roles and sharing moments of affectionate interaction with their children to affirm their self-identity, establish and maintain social capital, and seek social support (Xiong, 2024). However, supportive social relationships play a critical role in individuals' reproductive decisions (Bühler and Philipov, 2005). In this way, more frequent posting on WeChat Moments may indicate a stronger need for social support and may also help individuals with children receive more social support, thereby increasing the likelihood of positive fertility decision-making.

However, childbearing constitutes a decision and action requiring dual couple participation and considering both partners' reproductive intentions are equally significant in fertility analysis (Testa, Cavalli and Rosina, 2014). According to theories of the power rule, the sphere of interest model, social drift rule, the golden mean rule, the symmetrical veto model and the joint utility model (Jansen and Liefbroer, 2006; Bauer and Kneip, 2014), couples' fertility intentions are often not fully agreed with due to a range of factors. Different types of social media may serve various functions for different individuals. Similarly, such differences are also likely to exist within couples, as partners may have distinct habits and patterns of social media use. Studies show that significant gender differences persist across most internet usage patterns (Helsper, 2010). Meanwhile, within the Chinese context, Confucian culture's emphasis on filial piety and clan ties further underscores the importance of researching both of men's and women's fertility intentions. Therefore, examining social media exposure and fertility intentions in a couple level may provide more meaningful insights. In addition, different levels of education play a key role in reproductive decisions due to postponed union or career orientation, especially for females. More importantly, within couples, different educational levels may lead to different bargaining power in family decision-making. Furthermore, couples may consider their age, which is related to fertility capacity, life stage, and physical and mental energy when planning to have another child. Younger couples are also more likely to use social media.

Therefore, the study focuses on the association between the use of two different Chinese social media platforms and the short-term intention to have another child among dyadic couples with one or two children. Few studies have examined these aspects to date. Specifically, the study aims to address the following **research question**: How does couples' usage of these two platforms, with one or two children, associate with couples' short-term fertility intentions? Are there differences in these associations when using different social media platforms? Do men's and women's age and education moderate these relationships?

² WeChat Moments is a feature within the WeChat application, resembling Facebook and Instagram, but its secure communication environment and high level of privacy mean that the primary interaction groups are likely to be the user's family, friends, and relatives (Zhao, Zhu and Hao, 2018).

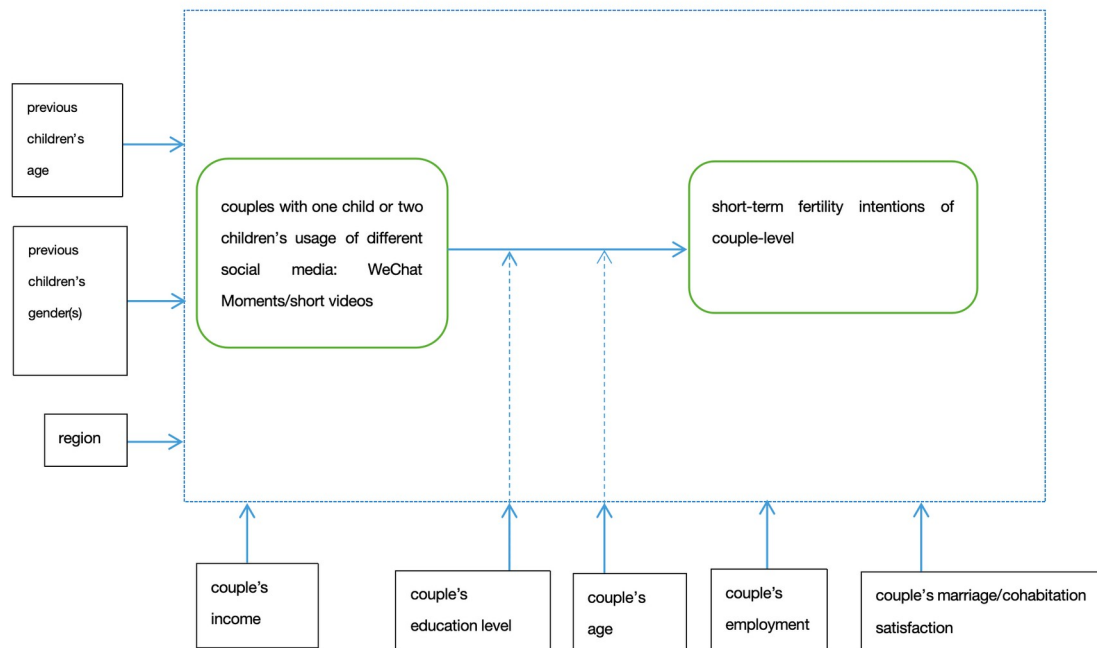


Figure 1 The conceptual diagram

The conceptual framework above is mainly to analyse the relationship between couple-level use of different social media and short-term fertility intentions to have the second or third child by considering couples' income, employment status, education, age, marriage satisfaction, region and previous children's age and gender.

Data and methods

The data used in our study come from the China Family Panel Studies (CFPS), which is administered by Peking University's Institute of Social Science Survey. The data can be available by application and approval. We use data from the latest wave of the 2022 CFPS primarily because it provides information on fertility intentions, social media use, and other sociodemographic characteristics. Also, an advantage of this survey is that it provides a dyadic sample of couples by investigating household members. We limited the age of the couples to under 50 years old, and the current sample of 1864 couples who had one or two children was obtained. The outcome variable of this study is expressed by the short-term fertility intentions³. The responses of "Yes" and "No" were assigned as "1" and "0" respectively. The independent variables were the use of two types of social media. By combining relevant questions⁴, based on the respondents' answers, the usage of short videos was measured with two dummy variables, respectively (1 for "frequently" and 0 for "infrequently"). The use of WeChat Moments was measured with the dummy variable (1 for "frequently", including "almost everyday", "3~4 times each week", "once or twice each week", "once a month" and "once in a few months"; and 0 for "infrequently", including "Never"). In addition, descriptive statistics, a chi-square test and some logistic regressions were applied to present the results.

³ The data come from responses to the question, "Do you plan to have a child within the next two years?" in the CFPS 2022 questionnaire.

⁴ "Including Volcano, Tiktok, Wesee, DouYu, etc., have you watched short videos or online live broadcast programs during the past week?" and "During the past week, did you watch short videos or online live streaming programs almost everyday?"; and "During the past year, have you used Wechat?" and "During the past year, how often did you publish posts about your life or work on Wechat Moments?".

Descriptive results

The descriptive results above shows that couples' social media usage are correlated, as are their fertility intentions. Graphs 1 and 2 show that couples use short videos and WeChat Moments frequently. The graph 3 shows that there are differences within couples: men tend to have higher fertility intentions than women.

Table 1 shows that, regarding the use of short videos, women are slightly more likely to plan to have a child when both members of the couple use them frequently, whereas men's fertility intentions are not correlated with that. In contrast, men's fertility intentions are significantly higher when both members of the couple post on WeChat Moments frequently. Women also show a slight intention increase when both partners frequently use it. However, Table 2 shows that both men and women are more likely to plan to have a child when the couples post frequently on WeChat Moments and watch short videos frequently.

Overall, men are more likely than women to intend to have another child, while couples in which the woman wants a child in short-term but the man does not are relatively rare. In addition, couples where the woman plans to have a child but the man does not are slightly more likely if the woman is an infrequent short-video user but her partner watches them frequently, although these cases are relatively few in number.

Next steps

Preliminary descriptive results indicate that there are different relationships between the two Chinese social media usages and short-term fertility intentions at the couple level, using a dyadic couple sample. The next step is to construct logistic regression models that use the four-category couple level fertility intentions as outcome variable to obtain more detailed findings by increasing the number of covariates. It will allow us to examine whether the associations we note in the descriptives section can be explained by relevant observed characteristics of the couples in research question.

References

- Bauer, G. and Kneip, T. (2014) 'Dyadic fertility decisions in a life course perspective', *Advances in Life Course Research*, 21, pp. 87–100.
- Bühler, C. and Philipov, D. (2005) 'Social capital related to fertility: Theoretical foundations and empirical evidence from Bulgaria', *Vienna Yearbook of Population Research*, pp. 53–81.
- Fincher, L.H. (2018) *Betraying Big Brother: The Feminist Awakening in China*. London: Verso.
- Helsper, E.J. (2010) 'Gendered internet use across generations and life stages', *Communication Research*, 37(3), pp. 352–374.
- Jansen, M. and Liefbroer, A. (2006) 'Couples' attitudes, childbirth, and the division of labor', *Journal of Family Issues*, 27(11), pp. 1487–1511.
- Qin, B., Strömberg, D. and Wu, Y. (2017) 'Why does China allow freer social media? Protests versus surveillance and propaganda', *Journal of Economic Perspectives*, 31(1), pp. 117–140.
- Liao, S. and Wang, D. (2024) 'A cultural communication perspective on infant-related short videos on Douyin', *Culture Journal*, 2024(5), pp. 59–64. (Translated from the

Chinese)

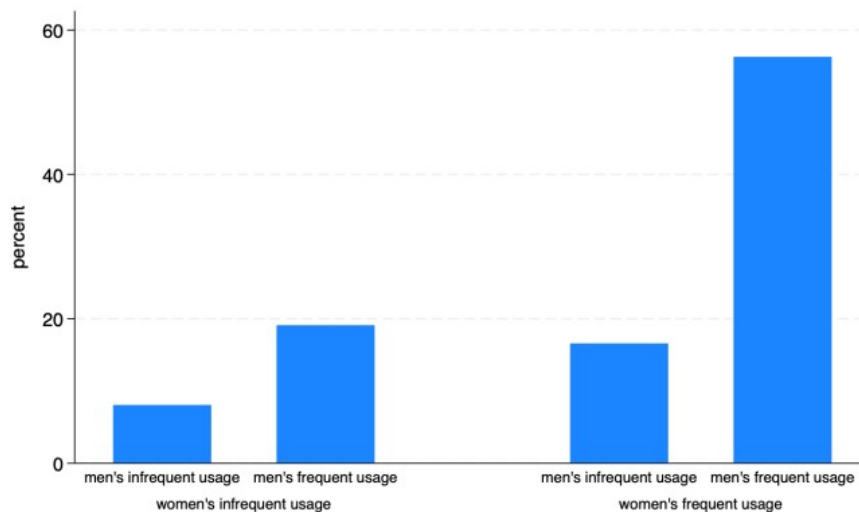
Starbird, E., Norton, M. and Marcus, R. (2016) 'Investing in family planning: Key to achieving the sustainable development goals', *Global Health: Science and Practice*, 4(2), pp. 191–210.

Testa, M.R., Cavalli, L. and Rosina, A. (2014) 'The effects of couple disagreement about child-timing intentions: A parity-specific approach', *Population and Development Review*, 40(1), pp. 31–53.

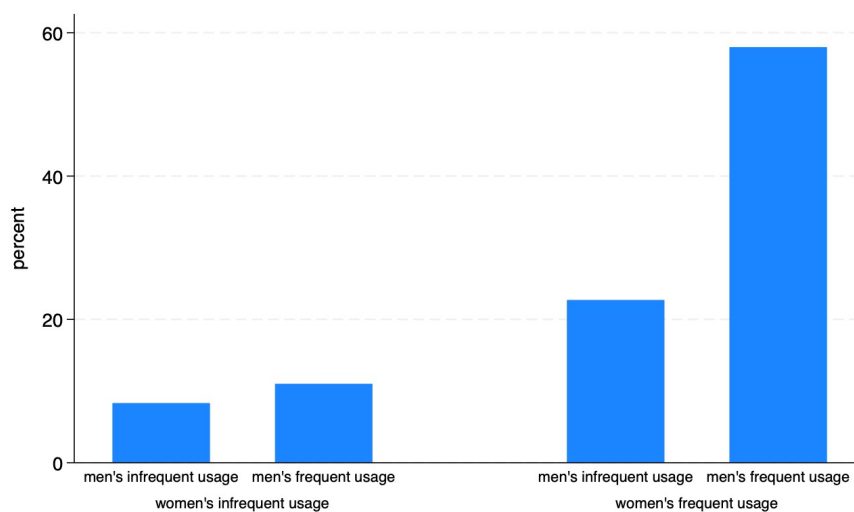
Wood, J.V. (1996) 'What is social comparison and how should we study it?', *Personality and Social Psychology Bulletin*, 22, pp. 520–537.

Xiong, Y. and Liu, T. (2023) 'WeChat as the coordinator of polymedia: Chinese women maintaining intercultural romantic relationships', *Media International Australia*, 188(1), pp. 160–176.

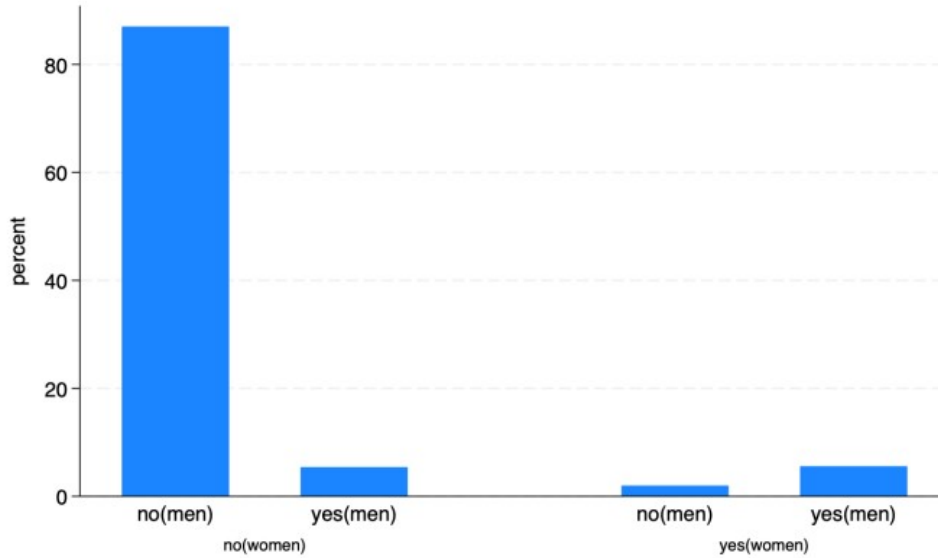
Xiong, Y. (2024) 'Returning to and continuing the traditional Chinese family system via WeChat: Digitally mediated families in liquid China', *Mobile Media & Communication*, 12(3), pp. 517–535.



Graph 1: percentage distribution by couples' short videos usage



Graph 2: percentage distribution by couples' WeChat Moments usage



Graph 3: Percentage distribution by couples' fertility intentions

Table 1 The cross-tabulation of couple-level social media usage and women's and men's fertility intentions respectively

	women's fertility intentions		men's fertility intentions		
couples' short videos usage	No	Yes	No	Yes	Total
both men and women infrequent usage	140	10	136	14	150
	93.33%	6.67%	90.67%	9.33%	100.00%
both men and women frequent usage	954	95	921	128	1,049
	90.94%	9.06%	87.80%	12.20%	100.00%
men frequent but women infrequent usage	333	23	316	40	356
	93.54%	6.46%	88.76%	11.24%	100.00%
men infrequent but women frequent usage	296	13	286	23	309
	95.79%	4.21%	92.56%	7.44%	100.00%
Pearson chi2(3) = 9.1131 Pr = 0.028			Pearson chi2(3) = 5.9878 Pr = 0.112		
couples' Wechat Moments usage	No	Yes	No	Yes	Total
both men and women infrequent usage	152	3	150	5	155
	98.06%	1.94%	96.77%	3.23%	100.00%
both men and women frequent usage	988	93	939	142	1,081
	91.40%	8.60%	86.86%	13.14%	100.00%
men frequent but women infrequent usage	195	10	187	18	205
	95.12%	4.88%	91.22%	8.78%	100.00%
men infrequent but women frequent usage	388	35	383	40	423
	91.73%	8.27%	90.54%	9.46%	100.00%
Pearson chi2(3) = 11.1125 Pr = 0.011			Pearson chi2(3) = 16.6707 Pr = 0.001		
Total	1,723	141	1,659	205	1,864
	92.44%	7.56%	89.00%	11.00%	100.00%

Table 2 The cross-tabulation of couple-level short videos usage and fertility intentions

couples' short videos usage	couple-level fertility intentions				Total
	both men and women "no"	both men and women "yes"	men's "yes" and women's "no"	men's "no" and women's "yes"	
both men and women infrequent usage	133	7	7	3	150
	88.67%	4.67%	4.67%	2.00%	100.00%
both men and women frequent usage	902	76	52	19	1,049
	85.99%	7.24%	4.96%	1.81%	100.00%
men frequent but women infrequent usage	306	13	27	10	356
	85.96%	3.65%	7.58%	2.81%	100.00%
men infrequent but women frequent usage	281	8	15	5	309
	90.94%	2.59%	4.85%	1.62%	100.00%
Pearson chi2(9) = 18.9494 Pr = 0.026					
couples' Wechat Moments usage	both men and women "no"	both men and women "yes"	men's "yes" and women's "no"	men's "no" and women's "yes"	Total
both men and women infrequent usage	149	2	3	1	155
	96.13%	1.29%	1.94%	0.65%	100.00%
both men and women frequent usage	922	76	66	17	1,081
	85.29%	7.03%	6.11%	1.57%	100.00%
men frequent but women infrequent usage	182	5	13	5	205
	88.78%	2.44%	6.34%	2.44%	100.00%
men infrequent but women frequent usage	369	21	19	14	423
	87.23%	4.96%	4.49%	3.31%	100.00%
Pearson chi2(9) = 26.7100 Pr = 0.002					
Total	1,622	104	101	37	1,864
	87.02%	5.58%	5.42%	1.98%	100.00%