

RESEARCH ARTICLE

The correlation between social media use, peer influence, and sexual behaviour among adolescents

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Abstract

Objective: To assess the correlation among social media use, peer influence and sexual risk behaviour among school going adolescents.

Method: The cross-sectional study was conducted from April to July 2022 after approval from the ethics review board of Stikes, Hang Tuah, Surabaya, Indonesia, and comprised grade 11 students of either gender at the Senior High School 1, Hang Tuah, Surabaya. Data was collected using social media and peer influence questionnaires. Data was analysed using SPSS version 23.

Results: Of the 134 participants, 79(59%) were males, and 91(67.9%) were aged 17 years. Highly frequent social media usage was reported by 81(60.4%) subjects, getting influenced by peers by 82(61.2%) and sexual risk behaviour by 88(65.7%). Social media usage and peer influence were significantly associated with sexual behaviour ($p < 0.05$).

Conclusion: A significant relationship was noted of sexual behaviour with social media usage and peer influence.

Keywords: Sexual behaviour, Adolescent, Demography, Social media, Peer influence. (JPMA 73: S-39 [Suppl. 2]; 2023)

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Introduction

The total population in Indonesia of those aged 15-19 was 22,242,866 million in 2018; 11,378,661 million males and 10,864,205 million females. The largest age group in the East Java province was 15-19 years (8.23%).¹ Adolescence is a period dominated by puberty or reproductive maturation, mental development as well as transition from socioeconomic dependence to independence. These changes have an important impact on health outcomes in this group.²

Puberty among adolescents has a high-risk prevalence of sexual behaviour.³ Sexual behaviour refers to all activities to fulfil sexual needs, such as sexual practices and sexual relationships. Meanwhile, adolescent sexual behaviour refers to activities during dating, kissing and early sexual intercourse.⁴ These activities may promote risk behaviour and have an effect on health outcomes, such as human immunodeficiency virus (HIV), sexually-transmitted diseases (STDs), unwanted pregnancies, abortion, and legal/familial conflict.⁵

The degree of sexual risk behaviour among adolescents in Indonesia increased in several activities; holding hands from 69% to 75% and kissing to 29.3%. In addition, 3.5% of adolescents reported having sex before marriage due to curiosity.⁶

Factors related to adolescent sexual behaviour include the desire for early marriage⁷ and having low self-control⁸. Social media use is also a factor related to sexual behaviour among adolescents.⁹ It is known that several videos or pictures in social media along with internet pornography are not suitable for children and adolescents.¹⁰ The family should be responsible for controlling these situations.¹¹

Besides, influence of peers also triggers sexual risk behaviour.¹² This causes adolescents to use peer norms rather than existing social norms.¹³

The current study was planned to assess the relationship of sexual risk behaviour with social media use and peer influence.

Subjects and methods

The cross-sectional study was conducted from April to July 2022 after approval from the ethics review board of Stikes, Hang Tuah, Surabaya, Indonesia, and comprised grade 11 students of either gender at the Senior High School 1, Hang Tuah, Surabaya. The sample was raised using simple random sampling technique. Informed consent was obtained from all the subjects who were allowed to withdraw from the study after reading the questionnaire. Those who did not agree to participate were excluded.

Data was collected using a self-reporting questionnaire, seeking demographic information, like age, gender, etc. The questionnaire related to social media use was adapted from a previous study.¹⁴ There were 19 items under three domains; obtaining information, encouraging use of social media, and individual attitude. It was scored on a Likert

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scale, with 4 = always and 1 = never. The total score ranged 19-76. A score of 19-37 was considered low frequency, 38-56 moderate, and 57-76 high frequency. The Cronbach's alpha of the questionnaire was 0.830.

The questionnaire related to peer influence was adapted from a previous study.¹⁵ It had 10 items under three domains; obtaining information from peers, encouragement to do sexual activities, and individual attitude. It was scored on a Likert scale, with 4 = strongly agree and 1 = strongly disagree. Score 10-19 was considered low, 20-29 moderate, and 30-39 high. Cronbach's alpha for the questionnaire was 0.907.

The questionnaire related to sexual behaviour was adapted from a previous study.¹⁶ It had 15 items exploring masturbation, touching, kissing, deep kissing, oral sex, petting and sexual intercourse. Each item was scored 0 for never and 1 for yes. The total score ranged 0-15, with 8.5-15 indicating risk behaviour, and 1-7.5 indicating no risk activity. Cronbach's alpha of the questionnaire was 0.7.

Data was analysed using SPSS version 23. Descriptive statistics were used to calculate frequencies and percentages for all variables. Spearman's rho was used to analyse the correlation of sexual behaviour with social media use and peer influence. $P < 0.05$ was taken as marker for statistical significance.

Results

Of the 134 participants, 79(59%) were males, and 91(67.9%) were aged 17 years (Table 1). Highly frequent social media usage was reported by 81(60.4%) subjects, getting

Table-1: Demographic characteristic of the respondents.

Characteristic	Total respondents (n=134) n (%)
Age (years)	
16	43 (32.1)
17	91 (67.9)
Gender	
Female	55 (41)
Male	79 (59)

Table-2: Study variables.

Variables	n (%)
Social media use	
Low	44 (32.8)
Moderate	9 (6.7)
High	81 (60.4)
Peer influence	
Low	23 (17.2)
Moderate	29 (21.6)
High	82 (61.2)
Sexual behaviour	
Not risk activity	46 (34.3)
Risk activity	88 (65.7%)

Table-3: Final Model of a Hypothesis Test on the Development of Transcultural-based Health Education Model on Families with Diabetes Mellitus

Sexual behaviour	Social media use			p-value
	Low [n (%)]	Moderate [n (%)]	High [n (%)]	
Risk activities	0 (0.0)	7 (5.2)	81 (60.4)	0.000
No-risk activities	44 (32.8)	2 (1.5)	0 (0)	
Sexual behaviour	Peer influence			p-value
	Low [n (%)]	Moderate [n (%)]	High [n (%)]	
Risk activities	0 (0.0)	6 (4.5)	82 (61.2)	0.000
No-risk activities	23 (17.2)	23 (17.2)	0 (0.0)	

influenced by peers by 82(61.2%) and sexual risk behaviour by 88(65.7%) (Table 2). Social media usage and peer influence were significantly associated with sexual behaviour ($p < 0.05$) (Table 3).

Discussion

Most respondents in the study used social media very frequently. The social media mostly accessed were WhatsApp, Twitter, Instagram, TikTok and Telegram. Adolescents spent a lot of time on social media to communicate with others. The findings were in line with those of previous studies.^{17,18}

The current study also showed that peer influence among the respondents was in the high category, and the respondents' behaviour was influenced by peer pressure. Socialisation with peers is important in encouraging individual psychosocial activities, but it may have both positive and negative impacts. If the peer influence is positive, it will have a good impact, and if it is negative, it will have a bad impact on adolescents.^{19,20}

The current study exhibited that sexual behaviour among the respondents was in the high-risk category, as evidenced in responses to item 12 (having sex by touching the genitals), item 13 (having sex without contraception), item 14 (having sex using contraceptives), and item 15 (having sex with more than one partner). The responses were in line with a previous study which stated that experience of having sex increases among those aged 12-19 years.²¹

The results showed that there was a significant relationship between the use of social media and sexual behaviour among the respondents. Those who used social media intensely tended to have a high-risk sexual behaviour because social media can be used to share information and ideas, and also to convey private messages and other contents. The finding supported previous studies which determined that high social media usage was more likely to lead to a risky sexual behavior.^{22,23} Parental control is important to mitigate sexual risk behaviour among adolescents.

The current study also showed that there was a significant relationship between peer influence and sexual risk behaviour. High peer influence tended to lead to high-risk sexual behaviour. Adolescents rely more on their peers than their parents. They also have strong emotional ties with their peer group.^{24,25} It is important to pay attention to activities that affect adolescent sexual behaviour. Lack of family roles, less supervision or less spiritual awareness can lead to a high-risk behaviour among the adolescents.

The limitation of the current study were the inclusion of only adolescents in a senior high school who may have different responses compared to adolescents in colleges due to the influence of social media. Also, the sample size was not calculated. Further studies should be conducted to overcome such limitations.

Conclusion

There was a significant relationship of sexual behaviour with social media usage and peer influence among adolescents.

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References

1. Ministry of Health of the Republic of Indonesia. Indonesia health profile 2018. Jakarta, Indonesia: Indonesian Ministry of Health; 2019.
2. Morales A, Vallejo-Medina P, Abello-Luque D, Saavedra-Roa A, García-Roncillo P, Gomez-Lugo M, et al. Sexual risk among Colombian adolescents: knowledge, attitudes, normative beliefs, perceived control, intention, and sexual behavior. *BMC Public Health* 2018;18:1377. doi: 10.1186/s12889-018-6311-y.
3. Nelon JL, De Pedro KT, Gilreath TD, Patterson MS, Holden CB, Esquivel CH. A latent class analysis of the co-occurrence of sexual violence, substance use, and mental health in youth. *Subst Use Misuse* 2019;54:1938-44. doi: 10.1080/10826084.2019.1618337.
4. Ibnu IF, Wahjuni CU, Devy SR. Narrative stories of high risk sexual behaviors among adolescents in Makassar City. *J Public Health Res* 2020;9:e1830. doi: 10.4081/jphr.2020.1830.
5. Chawla N, Sarkar S. Defining "High-risk Sexual Behavior" in the Context of Substance Use. *J Psychosexual Health* 2019;1:26-31. DOI: 10.1177/2631831818822015.
6. Statistics Indonesia (BPS), Macro International. Indonesia Young Adult Reproductive Health Survey 2007. Maryland, USA: Statistics Indonesia (BPS) and Macro International; 2008.
7. Menon JA, Kusanthan T, Mwaba SOC, Juanola L, Kok MC. 'Ring' your future, without changing diaper - Can preventing teenage pregnancy address child marriage in Zambia? *PLoS One* 2018;13:e0205523. doi: 10.1371/journal.pone.0205523
8. Magnusson BM, Crandall A, Evans K. Early sexual debut and risky sex in young adults: the role of low self-control. *BMC Public Health* 2019;19:1483. doi: 10.1186/s12889-019-7734-9.
9. Landry M, Turner M, Vyas A, Wood S. Social Media and Sexual Behavior Among Adolescents: Is there a link? *JMIR Public Health Surveill* 2017;3:e28. doi: 10.2196/publichealth.7149.
10. Chen AS, Leung M, Chen CH, Yang SC. Exposure to internet pornography among Taiwanese adolescents. *Social behavior and personality: An international journal* 2013;41:157-64. DOI: 10.2224/sbp.2013.41.1.157.
11. Achmad ZA, Mardiyah S, Pramitha H. The Importance of Parental Control of Teenagers in Watching Anime with Pornographic Content on the Internet. [Online] 2018 [Cited 2022 November 22]. Available from URL: file:///C:/Users/kca/Downloads/55909038.pdf
12. Widman L, Choukas-Bradley S, Helms SW, Prinstein MJ. Adolescent Susceptibility to Peer Influence in Sexual Situations. *J Adolesc Health* 2016;58:323-9. doi: 10.1016/j.jadohealth.2015.10.253.
13. Chia SC. How peers mediate media influence on adolescents' sexual attitudes and sexual behavior. *J Commun* 2006;56:585-606. Doi: 10.1111/j.1460-2466.2006.00302.x
14. Gupta S, Bashir L. Social networking usage questionnaire: Development and validation in an Indian higher education context. *Turkish Online Journal of Distance Education* 2018;19:214-27.
15. Badaki OL, Adeola MF. Influence of Peer Pressure as a Determinant of Premarital Sexual Behaviour among Senior Secondary School Students in Kaduna State, Nigeria. *J Multidiscip Res Healthcare* 2017;3:151-9. DOI: 10.15415/jmrh.2017.32012
16. Muflih M, Syafitri EN. Adolescent sexual behavior and measurement with questionnaire. *Jurnal Keperawatan Respati Yogyakarta* 2018;5:438-43. doi: 10.35842/jkry.v5i3.255.
17. Boer M, Stevens GW, Finkenauer C, de Looze ME, van den Eijnden RJ. Social media use intensity, social media use problems, and mental health among adolescents: Investigating directionality and mediating processes. *Computers in Human Behavior* 2021;116:106645. Doi: 10.1016/j.chb.2020.106645.
18. Boer M, van den Eijnden RJM, Boniel-Nissim M, Wong SL, Inchley JC, Badura P, et al. Adolescents' Intense and Problematic Social Media Use and Their Well-Being in 29 Countries. *J Adolesc Health* 2020;66(Suppl 6):s89-99. doi: 10.1016/j.jadohealth.2020.02.014.
19. Jones RM, Vaterlaus JM, Jackson MA, Morrill TB. Friendship characteristics, psychosocial development, and adolescent identity formation. *Pers Relatsh* 2014;21:51-67. Doi: 10.1111/pere.12017.
20. Kindermann TA. Natural peer groups as contexts for individual development: The case of children's motivation in school. *Dev Psychol* 1993;29:970-77.
21. Galambos NL, Albrecht AK, Jansson SM. Dating, sex, and substance use predict increases in adolescents' subjective age across two years. *Int J Behav Dev* 2009;33:32-41. DOI: 10.1177/0165025408095552.
22. Staton M, Dickson MF, Pike E, Surratt H, Young S. An Exploratory Examination of Social Media Use and Risky Sexual Practices: A Profile of Women in Rural Appalachia Who Use Drugs. *AIDS Behav* 2022;26:2548-58. doi: 10.1007/s10461-022-03605-9.
23. Nagaddya R, Kiconco S, Komuhangi A, Akugizibwe P, Atuhairwe C. Assessing the Influence of Social Networking Material on Adolescents' Sexual Behavior in Kampala. *J educ pract* 2017;8:187-93.
24. Choukas-Bradley S, Giletta M, Widman L, Cohen GL, Prinstein MJ. Experimentally measured susceptibility to peer influence and adolescent sexual behavior trajectories: A preliminary study. *Dev Psychol* 2014;50:2221-7. doi: 10.1037/a0037300.
25. Whitaker DJ, Miller KS. Parent-adolescent discussions about sex and condoms: Impact on peer influences of sexual risk behavior. *J Adolesc Res* 2000;15:251-73. Doi: 10.1177/0743558400152004