

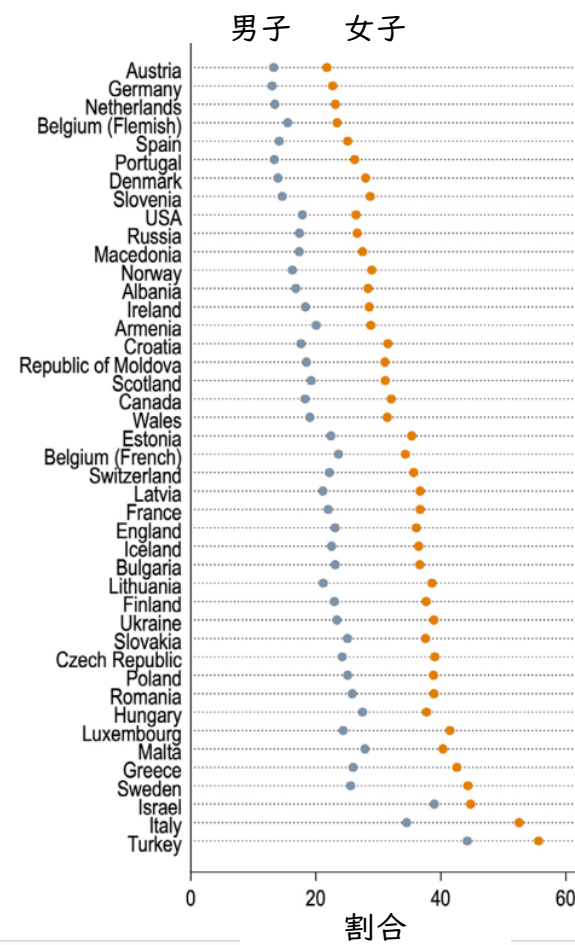
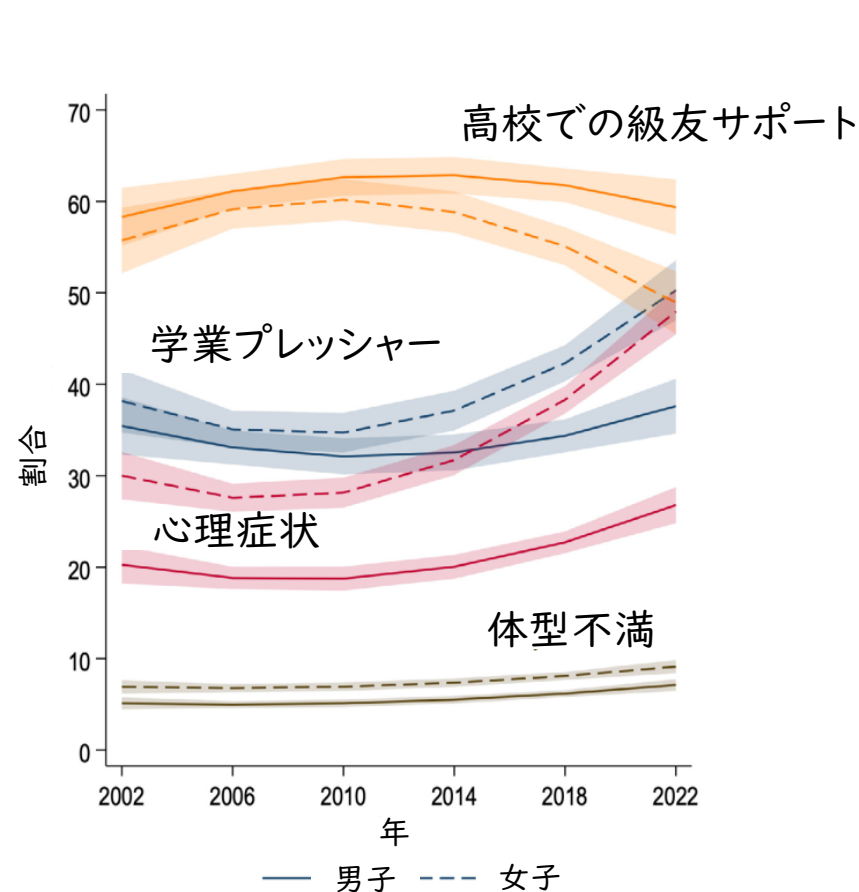
デジタル社会の子どもと未来

～メンタルヘルスの観点から～

国立精神・神経医療研究センター
行動医学研究部 室長
成田瑞

思春期が世界的な危機に晒されている

- 世界各国で心理症状が激増している（特に女子）。



De Looze 2025
JCPP

日本も若者の自殺者（特に女子）が急増

- 2024年に女子の自殺者数が記録上初めて男子を上回る。
- 原因：インターネット依存？

Correspondence

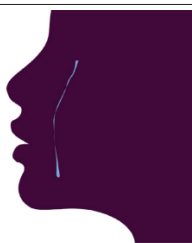
<https://doi.org/10.1038/s41562-025-02322-2>

The silent crisis in girls' mental health

The gender gap in adolescent mental health is widening – and girls are suffering. Across countries and cultures, girls are reporting rising levels of distress, which have serious consequences for their health and well-being.

In Japan, this crisis has taken a devastating turn in the past year: for the first time, more girls under 20 died from suicide than did boys (Fig. 1), according to the Ministry of Health, Labour and Welfare. This is a reversal of a longstanding pattern: a decade earlier, boys' suicides far outnumbered those of girls.

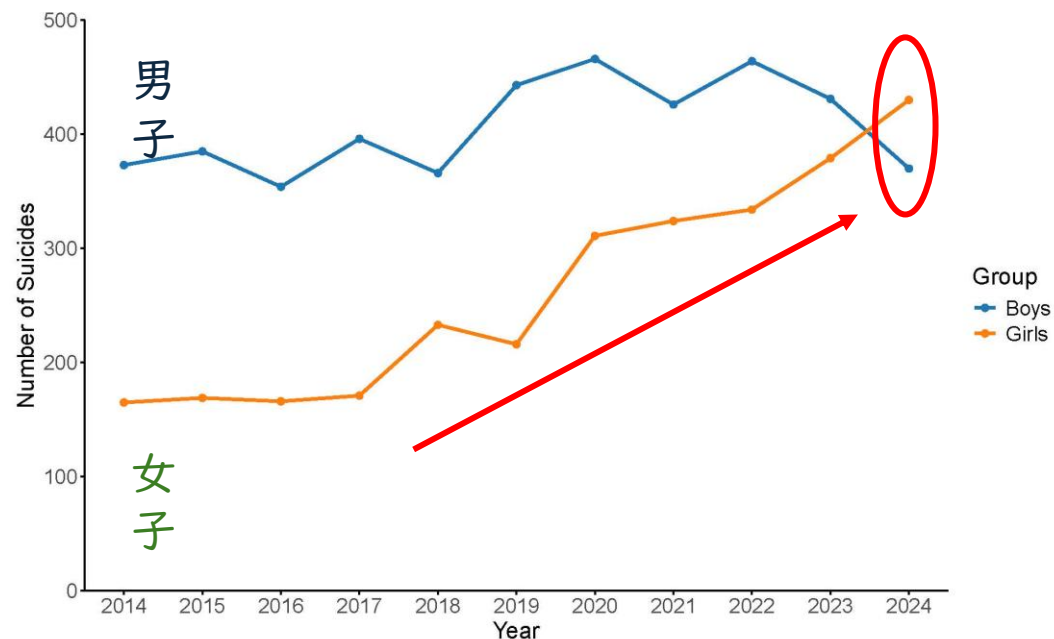
Over the past decades, the gender gap in adolescent mental health has widened globally, and girls increasingly report higher levels of mental health issues than boys. A recent international study using data from over 1.2 million adolescents across 43 countries found that this gap has grown particularly in more gender-equal countries not because boys' mental health has improved, but because girls' symptoms have worsened disproportionately. Another longitudinal cross-cultural study that enrolled adolescents in Tokyo and London found that depressive symptoms



symptoms. Second, problematic internet use, including engagement with social media, may disproportionately affect girls as compared with boys. Among teenagers in Tokyo during 2012–2021, problematic internet use was associated with depression in both girls and boys, but the absolute risk increase for depression was greater in girls. Third, sexual

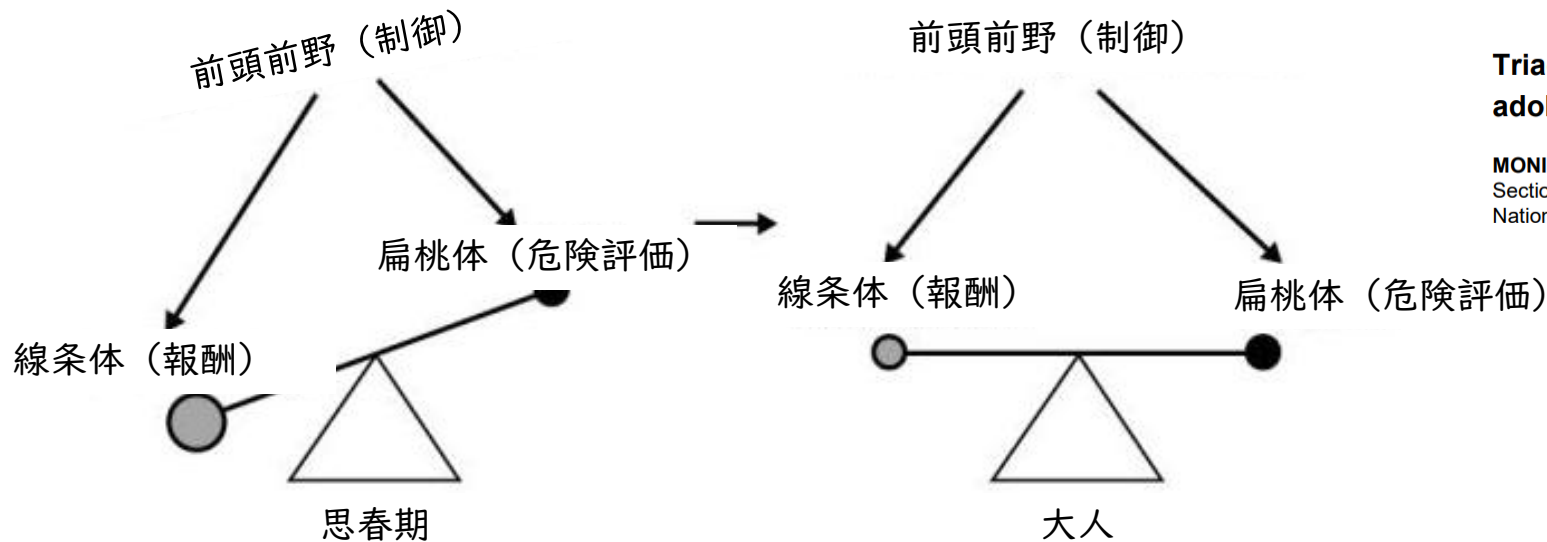
harassment and sexual violence remain widespread, and disproportionately affect girls. This issue is further compounded by online platforms: a recent meta-analysis suggests that online child sexual exploitation and abuse affect 8.1% of children globally each year. This evolving trend in sexual exploitation – particularly of girls – may be contributing to the worsening mental health outcomes among them. Fourth, body dissatisfaction and the internalization of unrealistic appearance ideals (particularly the thin ideal) appear to be disproportionately intensified among girls. Core clinical features of eating disorders – such as fear of weight gain and disrupted eating behaviours – have traditionally been more prevalent in female than in male individuals. A longitudinal study suggests that a diagnosis of an eating disorder has substantially increased among adolescent girls in recent years, but no comparable increase has been observed in boys. Thus, girls might be disproportionately and increasingly affected by a fear of gaining weight and disrupted eating behaviours in association with psychological

20歳未満の自殺者数の推移



思春期脳と依存症

- アクセル（線条体）全開 vs. ブレーキ（前頭前野）未完成。
- デジタルに限らず依存症は思春期脳との相性が悪い。



Published in final edited form as:

Psychol Med. 2006 March ; 36(3): 299–312. doi:10.1017/S0033291705005891.

Triadic model of the neurobiology of motivated behavior in adolescence

MONIQUE ERNST*, DANIEL S. PINE, and MICHAEL HARDIN

Section of Developmental and Affective Neuroscience, National Institute of Mental Health, National Institutes of Health, Bethesda, MD, USA

Ernst 2006
Psychol Med

依存症は一時のものではない

- 依存症は回復が非常に難しい。
 - アルコール (Sliedrecht 2019)
 - 薬物 (Beaulieu 2021)
- 他のものにも依存しやすくなる (Thege 2016)。
 - 例：アルコール→薬物

Review article [Get rights and content](#) »

Alcohol use disorder relapse factors: A systematic review

Wilco Sliebrecht ^a, ^b, Ranne de Waart ^b, Katie Witkiewitz ^c, Hendrik G. Rozen ^d

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^c The University of New Mexico (UNM), MSC 03-2220, Univ of New Mexico, Albuquerque, NM 87131, USA

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Received 2 March 2019, Revised 23 May 2019, Accepted 24 May 2019, Available online 25 May 2019, Version of Record 5 June 2019.

• *J Behav Addict.* 2016 Nov 7;5(4):614–622. doi: [10.1556/2006.5.2016.079](#)

Co-occurring substance-related and behavioral addiction problems: A person-centered, lay epidemiology approach

Barna Konkoly Thege ^{1,2}, David C. Hodgins ¹, T. Cameron Wild ^{3,*}

• [Author information](#) • [Article notes](#) • [Copyright and License information](#)

PMCID: PMC5370366 PMID: [27829288](#)



SNSは依存を促す作りになっている

- 習慣的なSNSチェックで脳の線条体（報酬系）が活性化（Maza 2023 JAMA Pediatrics）
- インスタで「いいね」を見せられた子どもは脳の線条体（報酬系）が活性化（Sherman 2018 Psychol Sci）
- SNSによる承認は金銭報酬に類似した脳刺激（Crone 2018 Nature Commun）

➤ [JAMA Pediatr.](https://doi.org/10.1001/jamapediatrics.2022.4924) 2023 Feb 1;177(2):160-167. doi: 10.1001/jamapediatrics.2022.4924.

Association of Habitual Checking Behaviors on Social Media With Longitudinal Functional Brain Development

Maria T Maza¹, Kara A Fox¹, Seh-Joo Kwon¹, Jessica E Flannery¹, Kristen A Lindquist¹, Mitchell J Prinstein¹, Eva H Telzer¹

Affiliations + expand

PMID: 36595277 PMCID: [PMC9857400](https://pubmed.ncbi.nlm.nih.gov/36595277/) DOI: [10.1001/jamapediatrics.2022.4924](https://doi.org/10.1001/jamapediatrics.2022.4924)



MetaとYouTubeの米国法廷での敗訴

- 依存を促す設計が、子どものメンタルヘルス被害に法的責任を負うと米国陪審が判断

B B C

Campaigners welcome Meta and YouTube's defeat in landmark social media addiction trial

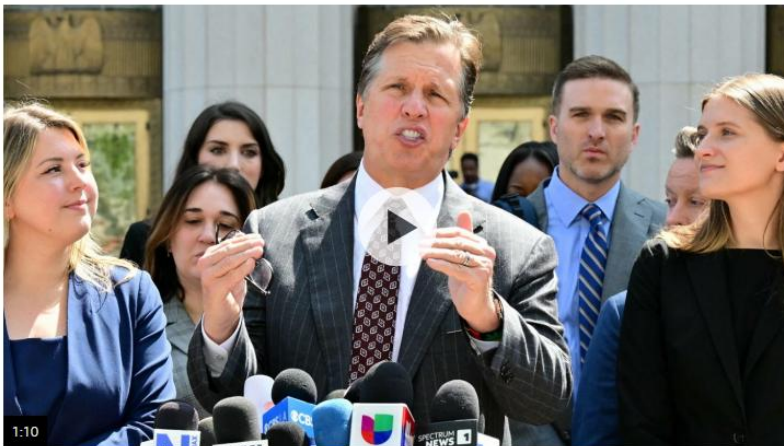
27 March 2026

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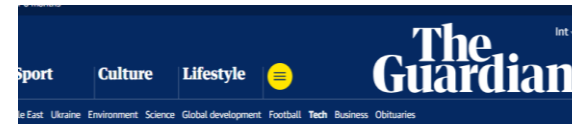
Add as preferred on Google

Kali Hays, Technology reporter, Nardine Saad and Regan Morris, Los Angeles



1:10

Watch: Plaintiff's lawyer calls social media ruling a "righteous moment"



Meta and YouTube designed addictive products that harmed young people, jury finds

Jury in Los Angeles awards plaintiff damages of \$6m, with Meta to pay 70% and YouTube the remainder

Sign up for the Breaking News US email to get newsletter alerts in your inbox



Mark Zuckerberg arrives for a landmark trial over whether social media platforms deliberately addict and harm children. Photograph: Ryan Sun/AP

なぜスクリーンタイムが増えると言葉が遅れる？(Brushe 2024)

- 親子の会話が減る
 - 1時間スクリーンタイムが増えるごとに60回会話のやり取りが減少
- 結果、親子とも発語機会が減る
 - 子は1時間スクリーンタイムが増えるごとに300語減少
 - 親は400語減少

▶ JAMA Pediatr. 2024 Apr 1;178(4):369-375. doi: 10.1001/jamapediatrics.2023.6790.

Screen Time and Parent-Child Talk When Children Are Aged 12 to 36 Months

Mary E Brushe ^{1 2}, Dandara G Haag ², Edward C Melhuish ³, Sheena Reilly ⁴, Tess Gregory ^{1 2}

Affiliations + expand



とはいえスクリーンタイムをゼロにするのは難しい

- 親は手が離せないときに子どもに端末を与えている
- ゆとりがない家庭ほどスクリーンタイムが長くなりがち (Sawai, Under Review)



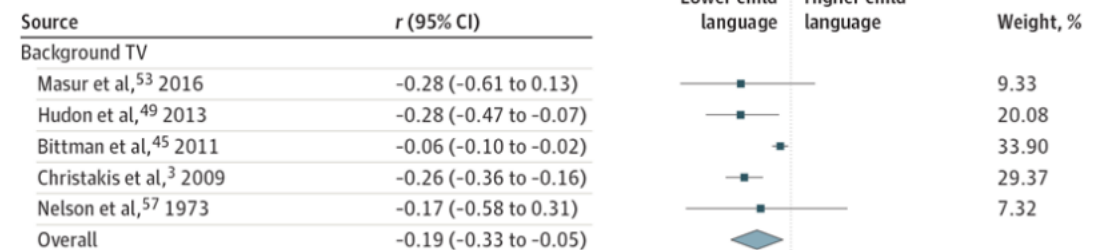
どのような使い方ならOK？

- 乳幼児期のスクリーンタイムが長い→将来の言語スキルが低い傾向
- TVをつけっ放しにしている→将来の言語スキルが低い傾向
- 教育番組を見る→将来の言語スキルが高い傾向
- 親と一緒に見る→将来の言語スキルが高い傾向

Meta-Analysis > JAMA Pediatr. 2020 Jul 1;174(7):665-675. doi: 10.1001/jamapediatrics.2020.0327.

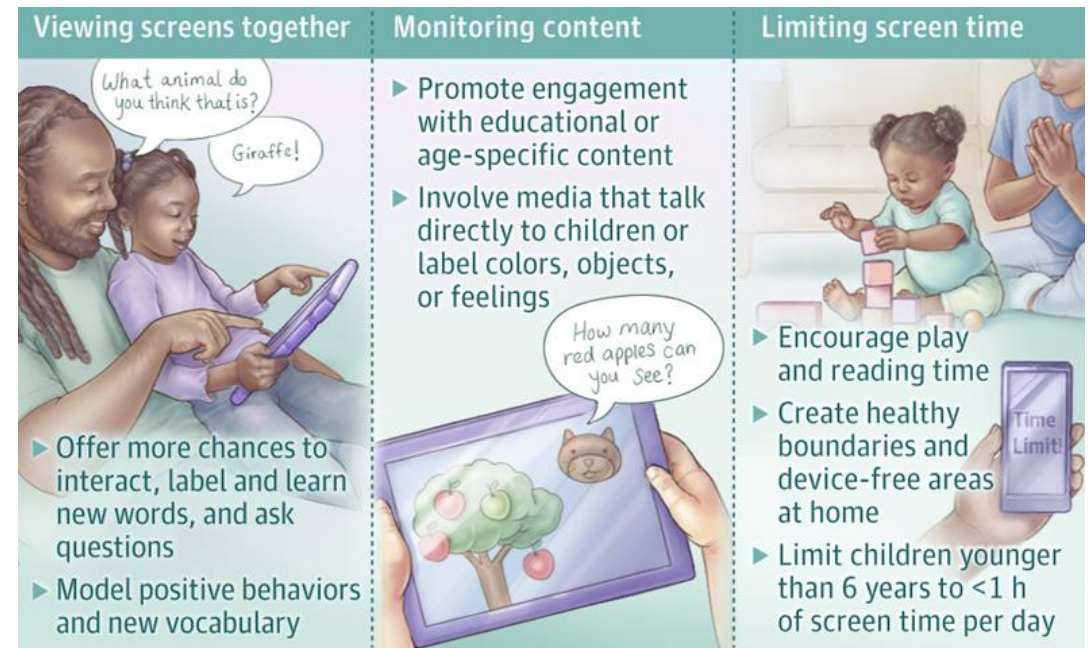
Associations Between Screen Use and Child Language Skills: A Systematic Review and Meta-analysis

Sheri Madigan^{1 2}, Brae Anne McArthur^{1 2}, Ciana Anhorn^{1 2}, Rachel Eirich^{1 2},
Dimitri A Christakis^{3 4}



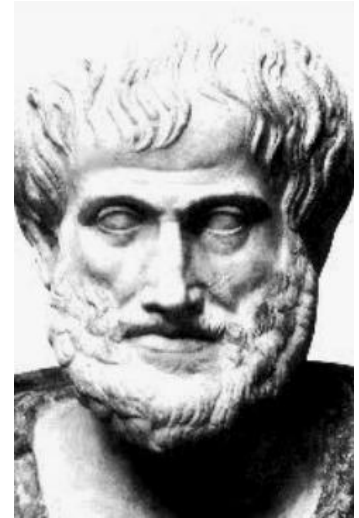
どのような使い方ならOK？

- スクリーンを見るときは親子一緒に
- 教育的なコンテンツ、親子で話しながら観る
- 家にスクリーンフリーの場所を作る
(TVをつけっ放しにしない)



孤独感はたばこと同じくらい体に悪い？

- 人間は社会的動物である
～アリストテレス（BC300–400頃）～
- 孤独感が高いほど死亡率も高い（Layard 2023）
- 孤独感が継続するとメンタル不調（Narita 2026）



The Journal of Child Psychology and Psychiatry
Journal of Child Psychology and Psychiatry 67:7 (2026), pp 1095–1105
doi:10.1111/jcpp.70114

Loneliness patterns across time and subsequent risk of psychotic experiences, depression, anxiety, and diminished well-being in adolescents

Zui C. Narita,¹ Jordan DeVlyder,^{2,3} Gemma Knowles,⁴ Syudo Yamasaki,³ Mitsuhiro Miyashita,³ Daniel Stanyon,⁴ Satoshi Yamaguchi,³ Tomohiro Shinozaki,⁵ Ryo Sasaki,³ Rui Zhou,³ Shuntaro Ando,³ Craig Morgan,⁴ Paola Dazzan,⁶ Toshiaki A. Furukawa,⁷ Kiyoto Kasai,^{8,9} Ian Kelleher,^{10,11,12,13} and Atsushi Nishida³



ネットは居場所になるのか

- マイノリティの方はSNSでつながりを得られるという側面も
- ただしその過程で差別・排除・ハラスメントに遭うことも多い
 - 例：彼（女）はノンバイナリーなので“本気ではない”など

> [J Adolesc Health](#). 2020 Mar;66(3):275-280. doi: 10.1016/j.jadohealth.2019.08.011. Epub 2019 Nov 2.

Transgender Adolescents' Uses of Social Media for Social Support

[Ellen Selkie](#)¹, [Victoria Adkins](#)², [Ellie Masters](#)³, [Anita Bajpai](#)⁴, [Daniel Shumer](#)⁵

Affiliations + expand

Social Media Use and Health and Well-being of Lesbian, Gay, Bisexual, Transgender, and Queer Youth: Systematic Review

[Matthew N Berger](#)^{1,2} ; [Melody Taba](#)¹ ; [Jennifer L Marino](#)^{1,3,4,5,6,7} ;
[Megan S C Lim](#)^{7,8,9} ; [S Rachel Skinner](#)^{1,10} 



ネットは居場所になるのか

- 本来はSNS = Social Networking Service
- 現実^は使い方次第でむしろ孤独感^は強くなる (Matthews 2025)
- ネット依存傾向があると、人^とのかかわり^が減り、その後のメンタルヘルス^が悪化 (Narita 2024)

▶ Ann N Y Acad Sci. 2025 May 11;1548(1):194–205. doi: [10.1111/nyas.15370](https://doi.org/10.1111/nyas.15370)

Social media use, online experiences, and loneliness among young adults: A cohort study

[Timothy Matthews](#)^{1,✉}, [Louise Arseneault](#)², [Bridget T Bryan](#)², [Helen L Fisher](#)^{2,3}, [Rebecca Gray](#)², [Joanne Henchy](#)², [Terrie E Moffitt](#)^{2,4,5,6,7}, [Candice L Odgers](#)^{8,9}



生成AIとメンタルヘルス（アメリカ）

- 若者全体の13%がメンタルヘルス助言のために生成AIを使用(McBain 2025)
- メンタルヘルスの問題がある大人のうち半数が生成AIを使用し、うち63%が改善を報告（McBain 2025）

→日本でも同様の使い方がされるだろう

▶ JAMA Netw Open. 2025 Nov 7;8(11):e2542281. doi: [10.1001/jamanetworkopen.2025.42281](https://doi.org/10.1001/jamanetworkopen.2025.42281) [↗](#)

Use of Generative AI for Mental Health Advice Among US Adolescents and Young Adults

[Ryan K McBain](#) ^{1,2,3}, [Robert Bozick](#) ⁴, [Melissa Diliberti](#) ⁵, [Li Ang Zhang](#) ⁴, [Fang Zhang](#) ^{3,6}, [Alyssa Burnett](#) ³, [Aaron Kofner](#) ¹, [Benjamin Rader](#) ^{3,7}, [Joshua Breslau](#) ⁵, [Bradley D Stein](#) ⁵, [Ateev Mehrotra](#) ⁸, [Lori Uscher Pines](#) ¹, [Jonathan Cantor](#) ^{4,✉}, [Hao Yu](#) ^{3,6}

▶ [Author information](#) ▶ [Article notes](#) ▶ [Copyright and License information](#)

PMCID: PMC12595529 PMID: [41201806](#)



生成AI使用後のトラブル

- Chat GPT使用後の自殺で訴訟8件（2026/6現在）
 - 遺族側は自殺念慮を検知しながら十分な介入をしなかったと主張
- Chat GPT使用後に母親殺害
 - 母親を脅威と見る妄想をChat GPTが補強したとされる
- Chat GPT使用後の銃乱射事件
 - 安全装置の外し方・どうすれば被害を大きくできるかなどChat GPTに相談

→プラットフォーム側の制御は不十分



CBC 2026



WPBF 2026

生成AI：課題

- プライバシー（学習される）
 - 過度な使用
 - 愛着を利用し、**エンゲージ**や**課金**に
 - 依存・強迫**的な利用につなげる
 - 情報を過信
 - 本来必要な**ケア**を受けずメンタル悪化
 - 規制の難しさ
- 多くはSNSと類似の問題

> [JAMA Pediatr.](#) 2026 May 1;180(5):473-474. doi: 10.1001/jamapediatrics.2026.0032.

Generative AI in Adolescence—A Developmental Framework

Cindy H Liu ^{1, 2}, Tiffany Yip ³

Affiliations + expand

PMID: 41837954 DOI: [10.1001/jamapediatrics.2026.0032](#)

> [JAMA.](#) 2026 Feb 3;335(5):385-387. doi: 10.1001/jama.2025.23965.

Millions Turn to AI Chatbots for Mental Health Support

Rita Rubin ¹

Affiliations + expand

PMID: 41511766 DOI: [10.1001/jama.2025.23965](#)

[Review](#) > [Lancet Child Adolesc Health.](#) 2025 Mar;9(3):194-204.

doi: 10.1016/S2352-4642(24)00332-8. Epub 2025 Jan 21.

From social media to artificial intelligence: improving research on digital harms in youth

Karen L Mansfield ¹, Sakshi Ghai ², Thomas Hakman ¹, Nick Ballou ¹, Matti Vuorre ³, Andrew K Przybylski ⁴

Affiliations + expand

PMID: 39855239 DOI: [10.1016/S2352-4642\(24\)00332-8](#)

> [JAMA Pediatr.](#) 2026 May 11. doi: 10.1001/jamapediatrics.2026.1349. Online ahead of print.

Risks and Consequences of Children's Use of Social AI—A Framework

Jenny Radesky ¹, Marie A Bragg ^{2, 3}, Alexis Hiniker ⁴

Affiliations + expand

PMID: 42113524 DOI: [10.1001/jamapediatrics.2026.1349](#)

まとめ

- 思春期脳はインターネットに限らず依存症と相性が悪い
- 乳幼児期のスクリーンは使い方に注意
 - 親子一緒に、教育的なコンテンツ、親子で話しながら観る
- ネットが居場所になることもあるが、かえって孤独感を悪化させることも多い
- デジタル社会において生成AIも含めたさらなる研究が必要