

Sexual reproductive health chatbots: should we be so quick to throw artificial intelligence out with the bathwater?

We found the concepts discussed by Nadarzynski *et al* on the acceptability of artificial intelligence (AI)-embedded chatbots, video consultations and live webchats in sexual and reproductive health (SRH) interesting.¹ However, we think the broad conclusion made that among patients “there is currently little support for SRH chatbots” ignores potentially important uses of this technology.

A recent systematic review on AI in primary care published in *BMJ Health and Care Informatics* highlighted the importance of testing AI in a similar scenario to that in which it would be used.² In Nadarzynski *et al*'s study, opinions were collected from patients who had already come into a sexual health clinic and registered for an appointment. It is understandable that after making their way to clinic, Nadarzynski *et al* found that patients would prefer to see a doctor instead of an AI alternative. Instead, we suggest that AI could be better utilised in SRH as a tool to triage patients with a barrier to attending clinic. This could be particularly useful in adolescent patients, who made up just 3% of Nadarzynski *et al*'s population, and who are likely to be more accepting of technological alternatives.

For many adolescents and young people, one major barrier to attending clinic can be embarrassment.³ As this is a very high-risk group, finding ways to overcome this barrier is vital.⁴ A study by Aicken *et al* in 2016 recruited

16–24-year-olds from a general UK college population, and undertook detailed interviews investigating their opinions on online sexual healthcare. The participants described avoiding sexual health clinics due to embarrassment and worries about being recognised, as well as concerns around the impacts of their friends and family knowing that they had attended a clinic. The young people approved of the ‘faceless’ nature of online consultations, and liked the ability of being able to conceal their contact with sexual healthcare.⁵

We believe this demonstrates that a young population would be receptive to an anonymous online tool that could help to triage their symptoms. For this reason, we do not believe that the AI was tested in a similar scenario to that in which it could be used and consequently Nadarzynski's *et al*'s conclusion, namely that AI chatbots are not acceptable to all patients, should be reconsidered.

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REFERENCES

- Nadarzynski T, Bayley J, Llewellyn C, *et al*. Acceptability of artificial intelligence (AI)-enabled chatbots, video consultations and live webchats as online platforms for sexual health advice. *BMJ Sex Reprod Health* 2020;46:210–7.
- Gottlieb K, Petersson G. Limited evidence of benefits of patient operated intelligent primary care triage tools: findings of a literature review. *BMJ Health Care Inform* 2020;27:e100114.
- Cassidy C, Bishop A, Steenbeek A, *et al*. Barriers and enablers to sexual health service use among university students: a qualitative descriptive study using the theoretical domains framework and COM-B model. *BMC Health Serv Res* 2018;18:581.
- Centers for Disease Control and Prevention. STDs in adolescents and young adults – sexually transmitted disease surveillance, 2017. Available: <https://www.cdc.gov/std/stats17/adolescents.htm> [Accessed Aug 2020].
- Aicken CRH, Fuller SS, Sutcliffe LJ, *et al*. Young people's perceptions of smartphone-enabled self-testing and online care for sexually transmitted infections: qualitative interview study. *BMC Public Health* 2016;16:974.