Humans, Robots, or Avatars? Which do children and young people prefer disclosing forensic information to?

Sam Conway
Julie Gawrylowicz
Robin Sloan
Andrea Szymkowiak

This poster was presented at the International Investigative Interviewing Research Group (iiiRG) Annual Conference 2022, 22-24 June 2022, Winchester, UK

Conway, S., Gawrylowicz, J., Sloan, R.J.S. & Szymkowiak, A. (2022) 'Humans, Robots, or Avatars? Which do children and young people prefer disclosing forensic information to?' Presented at: International Investigative Interviewing Research Group (iiiRG) Annual Conference 2022, Winchester, United Kingdom, 21-24 June 2022.



Humans, Robots, or Avatars? Which do children and young people prefer disclosing forensic information to?

Sam Conway¹, Dr. Julie Gawrylowicz¹, Dr. Robin Sloan², Dr. Andrea Szymkowiak²

¹School of Applied Sciences, Scotland, United Kingdom, ²School of Design and Informatics, Scotland, United Kingdom



Introduction

Physical and sexual abuse of children poses a substantial threat to young people both in the UK and across the rest of the world. Recent reports by the NSPCC 1 and 2 show

- 1 in 14 young people aged 11-17 in the UK experienced physical abuse
- 1 in 20 young people aged 11-17 in the UK experienced sexual abuse



On average it takes 7 years for young people to disclose sexual abuse ³.

Preferred disclosure recipients for young people can vary drastically depending on the ages and genders of the victims and witnesses 4.

Exploring disclosure preferences may help practitioners understand to who young people may be most willing to confide information.

Novel technologies such as computer-mediated communication can increase young people's willingness to self-disclose intimate information ^{5, 6, and 7}.

Virtual human avatar characters (VCs) are beneficial for eliciting disclosure from adults ^{8, and 9} but are underexplored in younger age groups.

Aims & Objectives

- To measure how age, gender, and relationship with a perpetrator influence children's preferred disclosure recipients.
- To design virtual characters that will enhance disclosure from young people during forensic interviews.

Method

Participants and Recruitment:

- 23 Participants (Mean Age: 10.87; SD: 2.26)
- Children (aged 8-to-11) and adolescents (aged 12-to-16)
- Online advertisement using social media, word of mouth, and schools

Design

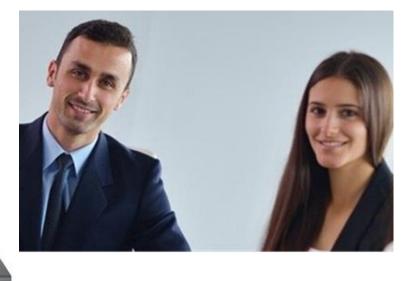
- 2 (Involvement: Victim/Witness) X 2 (Relationship: Family Member/Stranger) Within-Subjects
- DV: Participants rated how they felt about disclosing on a scale of 1 (Very Bad) to 5 (Very Good) and indicated their preferred disclosure recipient (age/gender/human/not human) and disclosure environment (online/offline) (Figure 1).

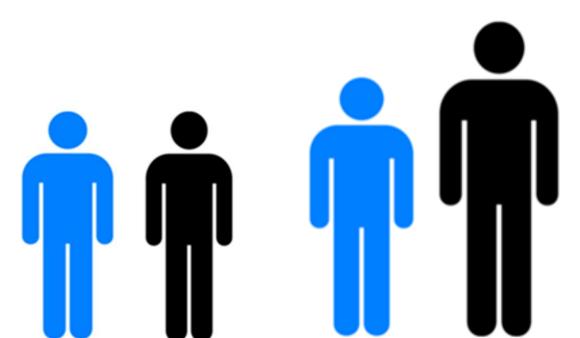
Figure 1. Preferred Disclosure Recipient Appearance and Environment

i) Online OR Face-to-Face

ii) Someone your age OR an adult



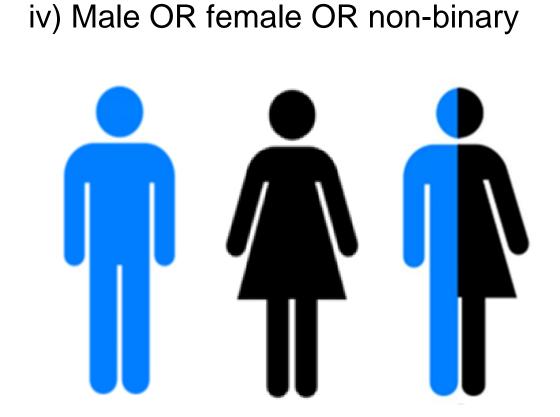




iii) Online character that is human OR Online character that is not human







Procedure:

- Participants read four hypothetical scenarios on an online Qualtrics survey
 - i. Two wherein they are a victim of theft (money or phone)
 - ii. Two wherein they are a witness to a theft (also money or phone)
- The perpetrator in these scenarios was either a 'family member' or a 'stranger'.
- For each scenario, participants rated how they felt about disclosing and picked their preferred disclosure recipient and environment.

Results

Involvement (witness/victim) and Relationship (stranger/family) conditions

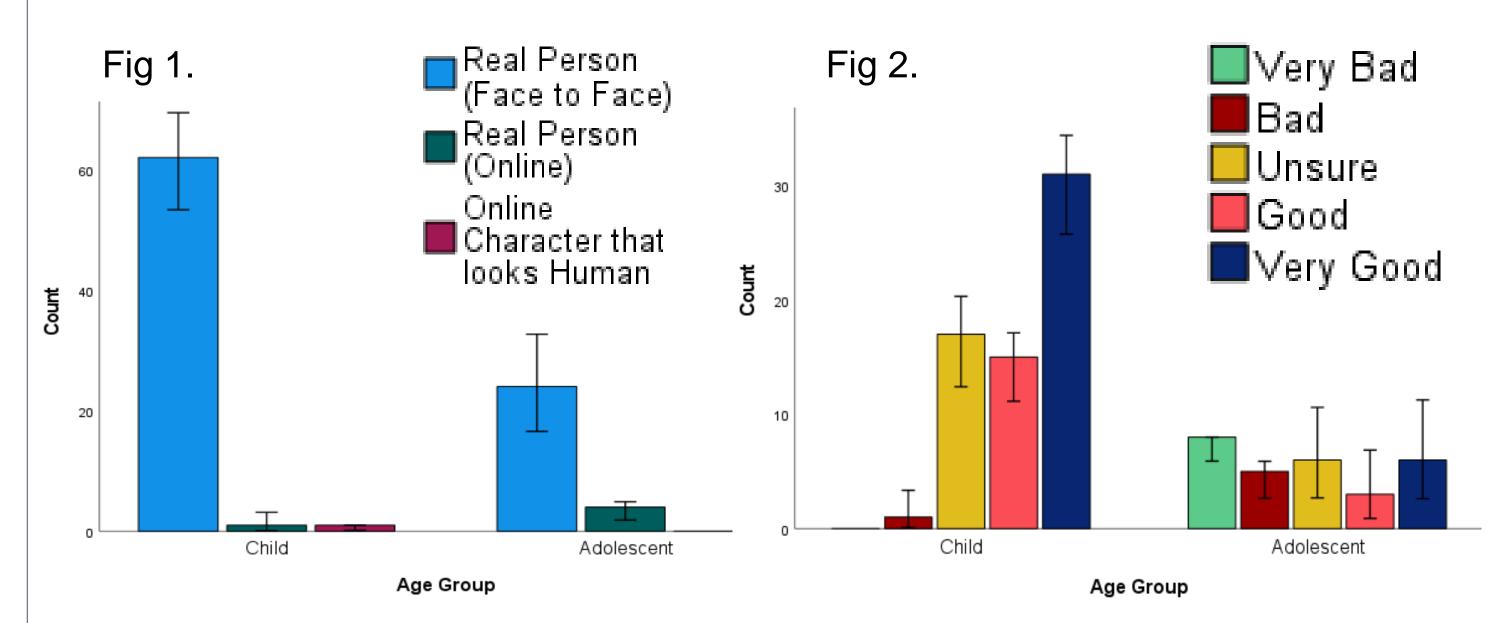
- There were no significant differences in how participants felt about disclosing across all conditions (p=.774)
- There were no significant differences in the preferred age (p=.507) and gender (p=.891) of the recipients across all conditions

Online character preference (human vs not human)

Human characters were preferred (75%) to non-human characters i.e., robots (25%)

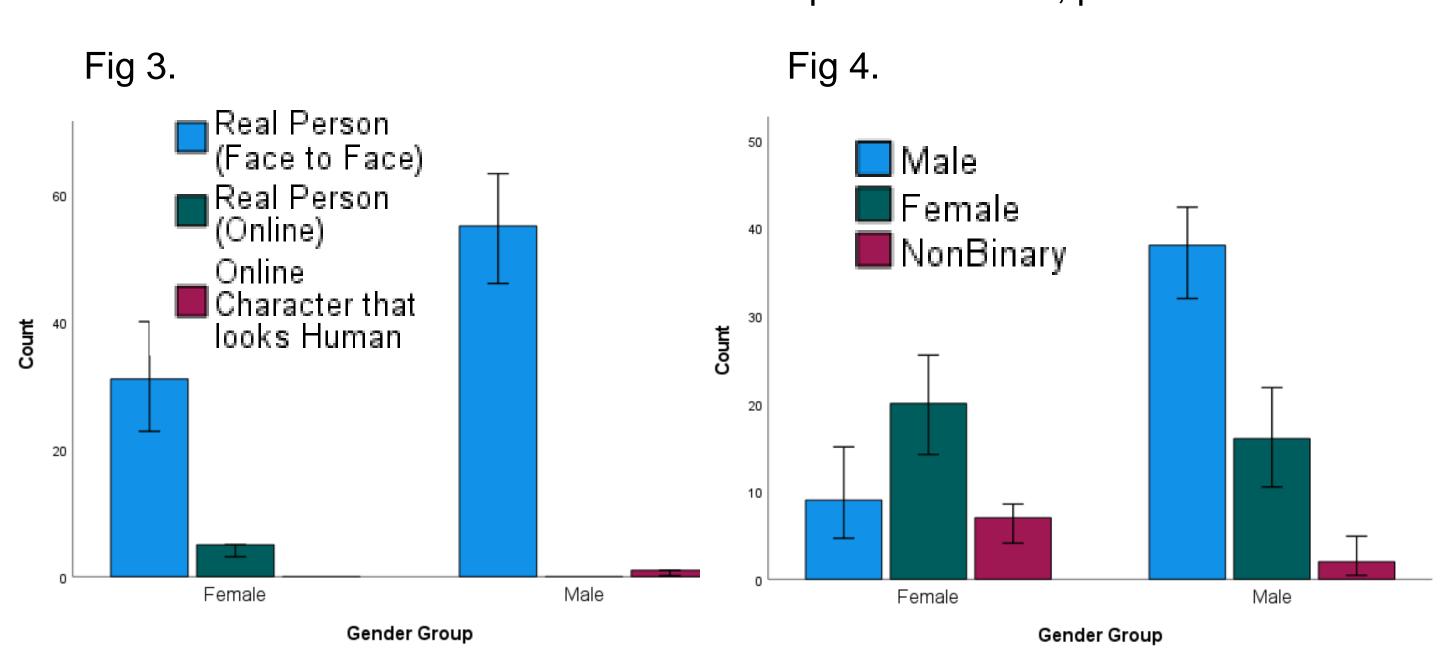
Participant age and preferred recipient age/disclosure method

- Adult recipients were preferred (95%) to recipients that were age-matched (5%)
- Both age groups preferred face to face disclosure (p = .039, see fig 1)
- Children felt better about disclosure compared to adolescents, p < .001 (see fig 2)



Participant gender and preferred recipient gender/disclosure method

- Males and females preferred face to face disclosure, p= .013 (see fig 3)
- Participants preferred recipients that were gender-matched, p = <.001, (see fig 4)
- Females felt worse about their disclosure compared to males, p = .004



Conclusions & Future Directions

- Relationship and Involvement did not have any significant effect on disclosure recipient preference or how participants felt about their disclosure
- Adult, gender-matched disclosure recipients are preferred, but in practice may not always be available.
- Human online characters were also preferred to nonhuman characters i.e., robots
- *Upcoming study*: we are examining the ability of humans and avatars to enhance disclosure and episodic memory, and reduce suggestibility in young people

References

¹ National Society for the Prevention of Cruelty to Children. (2021). Statistics briefing: physical abuse. https://learning.nspcc.org.uk/media/2669/statistics-briefing-physical-abuse.pdf

² National Society for the Prevention of Cruelty to Children. (2021). Statistics briefing: child sexual abuse.

https://learning.nspcc.org.uk/media/1710/statistics-briefing-child-sexual-abuse.pdf

³ Allnock, D. and Miller, P. (2013) No one noticed, no one heard: a study of disclosures of childhood abuse. London: NSPCC. https://learning.nspcc.org.uk/media/1052/no-one-noticed-no-one-heard-report.pdf

⁴ Manay, N., & Collin-Vézina, D. (2021). Recipients of children's and adolescents' disclosures of childhood sexual abuse: A

systematic review. Child Abuse & Neglect, 116, 104192.

⁵ Schouten, A. P., Valkenburg, P. M., & Peter, J. (2007). Precursors and underlying processes of adolescents' online selfdisclosure: Developing and testing an "Internet-attribute-perception" model. Media Psychology, 10(2), 292-315.

Toscos, T., Coupe, A., Flanagan, M., Drouin, M., Carpenter, M., Reining, L., ... & Mirro, M. J. (2019). Teens using screens for help: Impact of suicidal ideation, anxiety, and depression levels on youth preferences for telemental health resources. JMIR mental health, 6(6), e13230.

⁷ Dickinson, J. J., Lytle, N. E., & Poole, D. A. (2021). Tele-forensic interviewing can be a reasonable alternative to face-toface interviewing of child witnesses. Law and human behaviour, 45(2), 97.

⁸ Kang, S. H., & Gratch, J. (2014). Exploring users' social responses to computer counselling interviewers' behaviour. Computers in Human Behaviour, 34, 120-130.

⁹ Lucas, G. M., Gratch, J., King, A., & Morency, L. P. (2014). It's only a computer: Virtual humans increase willingness to disclose. Computers in Human Behaviour, 37, 94-100.