

Does online communication improve or diminish adolescents' social skills?

Findings from a 3-wave RI-CLPM

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Theory

- **Pesimistic view** (e.g., Konrath et al., 2011)
 - **Cues-filtered-out:** online interactions less rich, people less attuned & involved
 - **Displacement:** online interactions displace (richer) offline interactions
 - **online communication hinders development of social skills**
- **Optimistic view** (e.g., Koutamanis et al., 2013)
 - **Rehearsal:** online communication = protected environment, convenient for rehearsing self-disclosure
 - **Internet-induced social skills:** internet offers connections for new people, allows practicing initiation skills
 - **online communication improves social skills through practice**





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Existing evidence

- Cross-sectional studies: mixed results
(e.g., Assunção & Matos, 2017; Desjarlais & Joseph, 2017; McNaughton et al., 2022)
- Longitudinal studies: support for improvement
 - More online self-disclosure → more offline self-disclosure (Valkenburg et al, 2011)
 - More online communication → higher initiation skills (Koutamanis et al., 2013)
 - More social media use → higher empathy (Vossen & Valkenburg, 2016)
 - More social media use → no effect on social self-esteem (Valkenburg et al., 2017)
- However, existing longitudinal studies do not separate within-person and between-person effects





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Current study

- Re-testing the internet-induced social skills hypothesis
 - Separating within- and between-person effects
- Examining different communication partners
 - **Offline friends**
friends whom adolescents met in person
online communication easier – they already know each other → less practice
stronger consequences for offline relationships → more risk
→ weaker effects on social skills
 - **Online acquaintances**
people whom adolescents know exclusively from the internet
online communication more challenging – initiation needed → more practice
limited consequences for offline relationships → less risk
→ stronger effect on social skills





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Design & sample

Longitudinal online survey

- 3 waves, 6-month intervals
- June 2021–June 2022
- Collected by STEM/MARK & Datacollect

Quota sampling

- Households: SES (education), municipality size, region
- Adolescents: balanced age groups, balanced gender

***N* = 2,500 Czech adolescents (T1)**

- 11–16 years old, $M = 13.43$, $SD = 1.70$
- 50% girls
- T2: $N = 1,654$, T3: $N = 1,102$





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Measures

Online communication frequency (OCF)

Offline friends

- *How often do you use the internet to communicate with friends you know in person? By the internet, we mean any application, e.g., Messenger, email, WhatsApp etc.*
- (1) never (2) a few times (3) at least every month (4) at least every week (5) daily (6) several times a day

Online acquaintances

- *On the internet, people can have conversations with other people whom they do not know from real life—they have not met in person. These conversations can happen in various places, for example, on social networks, in games, on dating sites, in internet discussion, etc. We are not talking about “professional” communication (e.g., with e-shop, tutor, helpline). In the past 6 months, how often have you been talking to someone unknown on the internet?*
- (1) never (2) a few times (3) at least every month (4) at least every week (5) daily (6) several times a day

Social self-efficacy (Muris, 2001)

- 4 items, e.g.: *How easy or difficult it is for you to... have a chat with an unfamiliar person?*
- (1) very difficult (2) difficult (3) neither difficult nor easy (4) easy (5) very easy
- metric invariance across time, gender, age group

$$M_{T1} = 4.98$$
$$SD_{T1} = 1.21$$

$$M_{T1} = 2.08$$
$$SD_{T1} = 1.27$$

$$M_{T1} = 3.27$$
$$SD_{T1} = 0.81$$
$$\omega_{T1-T3} = .80 - .84$$



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Analysis

Random intercept cross-lagged panel model (RI-CLPM)

- Estimator: WLSMV
- Variables: OCF: Offline friends (ordinal)
OCF: Online acquaintances (ordinal)
Social self-efficacy (latent factor)
Age + Gender (controls)
- Model fit: $\chi^2(144) = 1153.41, p < .001$
CFI = .96, TLI = .95
RMSEA = .05 with 90% CI [.05; .06]
SRMR = .05

Multigroup RI-CLPM (exploratory)

- Differences by age group (11-13 vs. 14-16)
- No differences by gender (girls vs. boys)

Between-person effects

Stable differences between individuals
How frequency of online communication relates to social self-efficacy

Within-person effects

Fluctuations around individual baseline
How changes in online communication frequency predict changes in social self-efficacy in the next timepoint



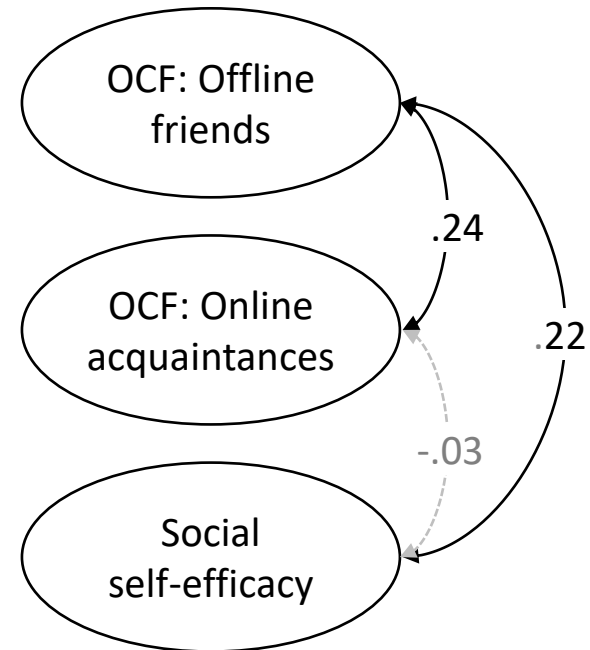
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Results: between-person

More socially self-efficacious adolescents tend to talk to offline friends online more

- Only among older (14-16) adolescents
- Only for offline friends
 - Communication with online acquaintances not dependent on social skills?
 - Analogous results for social anxiety (Mýlek, Dedkova, & Shouten, 2023)

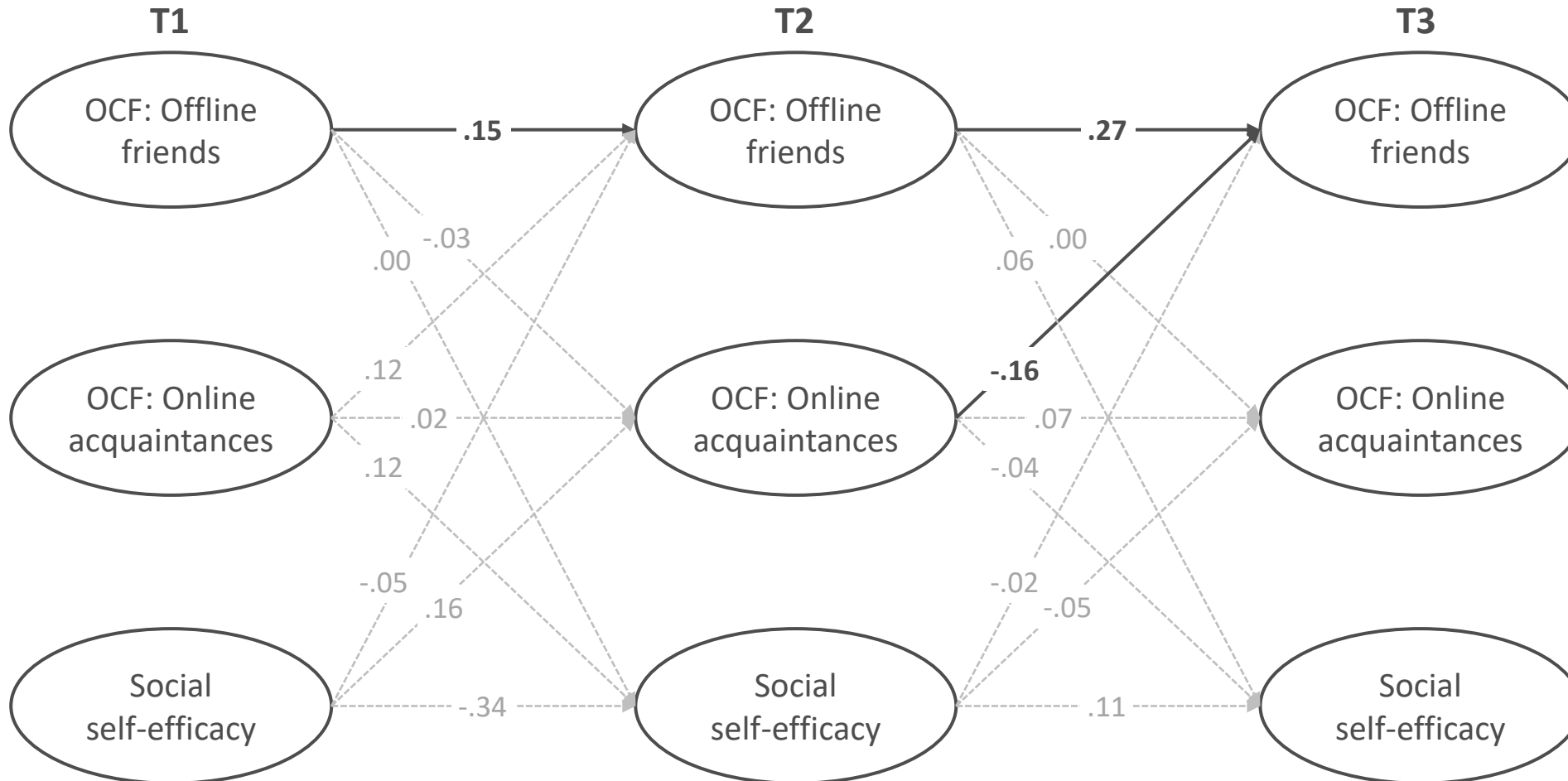
Online communication with offline friends related to communication with online acquaintances





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Results: within-person



No effect of online communication on social self-efficacy (or vice versa)

More online communication with online acquaintances (T2) → less online communication with offline friends (T3)



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Within-person: age differences

- Online communication with offline friends / online acquaintances:
 - **Younger:** More communication with acquaintances T2 → less with friends T3
 $\beta = -.20, p = .032$ (vs. $\beta = -.16, p = .150$ for older)
 - **Older:** More communication with acquaintances T1 → more with friends T2
 $\beta = .23, p = .003$ (vs. $\beta = -.14, p = .210$ for younger)
- Making new friends online?
 - Changing friendships typical for early adolescence
friendships more stable in later adolescence (Poulin & Chan, 2010)
 - Adolescents (especially older ones) commonly meet online acquaintances face-to-face, mostly to make new friends (Mýlek, Dedkova, & Mesh, 2023)





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Summary & caveats

- **No evidence** that online communication affects social skills
 - No improvement, no decline
 - Regardless of the type of communication partner
- **Some indication** that adolescents form new friendships online that later move offline (exploratory)
- **Caveats/limits**
 - Is 6 months the correct time interval?
 - Specific populations? Specific skills?
 - Results not consistent in time
 - Impact of COVID-19





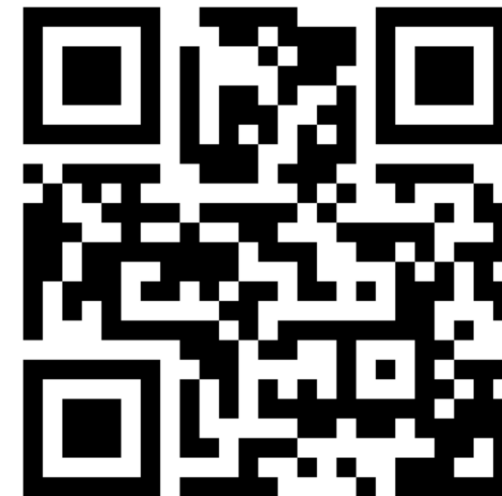
Thank you for listening!

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