

Young Children Video Chat Use: Differences, Advantages and Limitations

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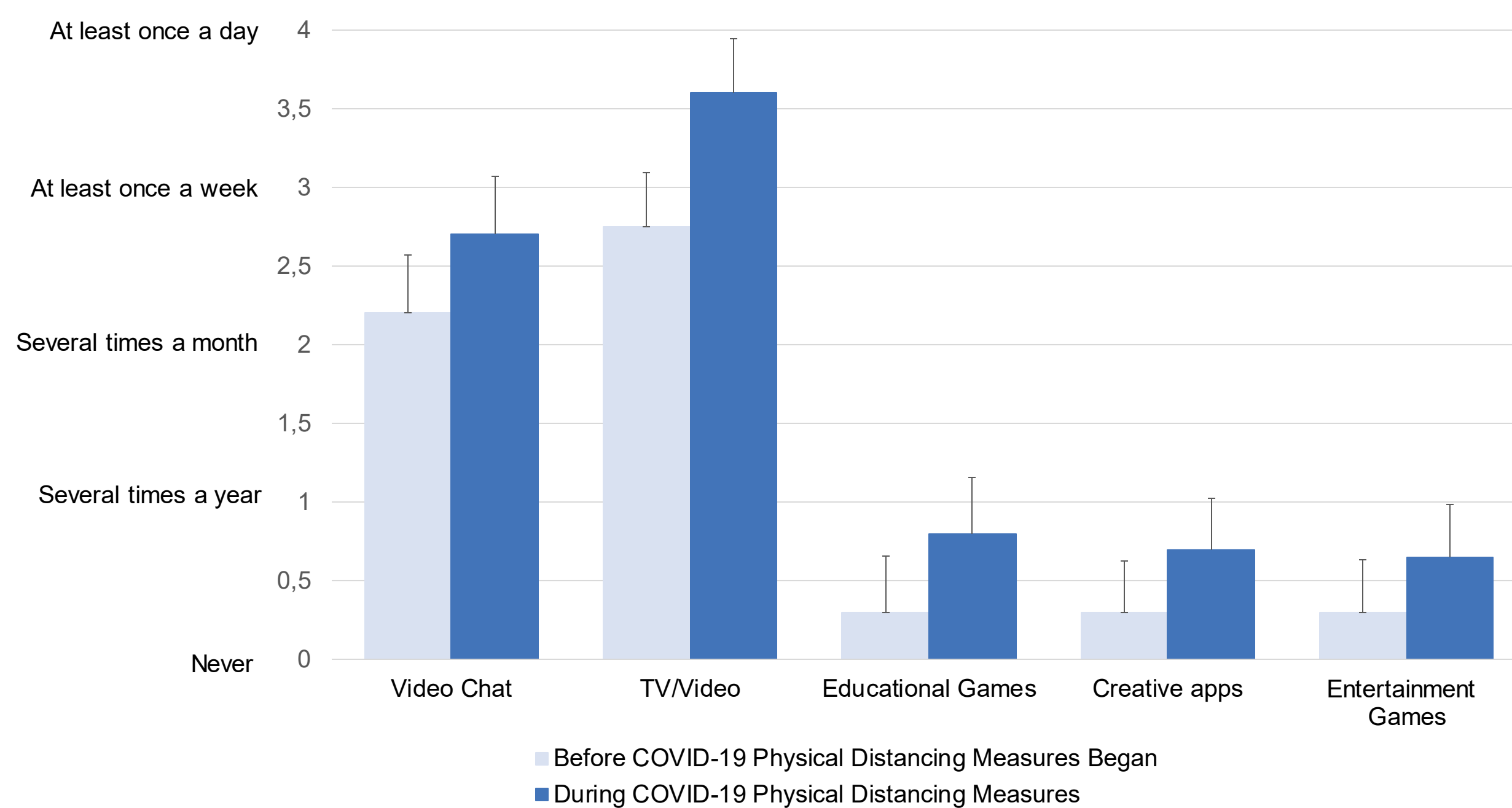
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Toddlers use video chat frequently

- Survey conducted in May and June 2020, reporting on before and during COVID-19 related daycare closures.
- Participants: 20 parents of 18- to 36-month-olds primarily from the Montreal area.

Toddlers' average use of different screen activities before and after physical distancing measures



• Error bars indicate the pooled standard error including ratings for before and after physical distance measures

Frequency of usage for the two most highly used screen activities by toddlers

Frequency of Usage	Video Chat			TV and Video		
	McClure et al., 2015 ⁹	Before physical distancing	During physical distancing	McClure et al., 2015 ⁹	Before physical distancing	During physical distancing
Had ever used it	85%	85%	90%	95%	85%	100%
At least several times a month	60%	80%	90%	NA	85%	100%
At least once a week	37%	50%	65%	NA	70%	90%

• McClure et al. (2015) survey: 183 parents of 6- to 24-month-olds in the DC metro area⁹.

Discussion:

- We confirmed frequent usage of video chat, the second-highest type of screen use after TV and video.
- Toddlers' screen media usage increased, across activities of screen media, during physical distancing.

Families of young children use video chat preferentially and view it differently

- Parents prefer video chat over audio calls as a way of staying connected¹:
 - Allows family members to directly observe the child's growth^{1,4}.
 - Allows for multiple family members to engage simultaneously thus fostering a family identity¹.
- 36% of parents of 6- to 24-month-olds view video chat as an exception to screen time limit⁹.
 - American Academy of Pediatrics also views video chat as the only screen media suitable for children under 18 months old³.

Social contingency and visual cues set video chat apart

- Socially contingent interactions are those where a person responds in a time- and content-relevant manner^{5,13,14}.
- Visual cues are crucial for children who have limited verbal communication skills¹.

	Video Chat	Audio Call	Other Screen Media
Social contingency	x	x	-
Visual cues	x	-	x

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Because video chat is socially contingent and has visual cues, it has some advantages

Word learning

- Children are better at matching new labels to novel objects or actions when learning via video chat compared to a pre-recorded video^{12,17}.
- Under the right circumstances, video chat may be as effective as in-person interactions for word learning¹⁷.

Turn taking

- The contingent and visual nature of video chat supports natural turn taking opportunities for children^{12,20} in a way that other screen media do not.

Familial relationship

- Contingency is critical for forging relationships with others^{2,13} and developing secure relationships⁶.
- Video chat allows children to recognize individuals¹², maintain relationships with family members over extended periods^{1,4} and engage in attachment behaviors¹⁸.

Limitations of video chat

- Extrinsic limitations: Technical difficulties⁸; Access issues⁸.
- Intrinsic limitations: Issues with eye gaze (i.e., the person is not looking directly at the other person)^{8,17}; No physical contact nor can they manipulate the same objects because they do not share the same space⁸.
- A co-viewer may help to overcome some limitations by:
 - Providing support with technical difficulties⁸.
 - Participating in the interaction^{11,19} such as repeating prompts^{8,10}.
 - Using strategic interventions^{8,10} such as asking the partner to bring the object in the frame^{8,10}.

Conclusion

- Toddlers use video chat frequently.
- Parents of toddlers' view video chat differently from other screen media.
- Video chat is different from other screen media because it is socially contingent and it uses visual cues.
- Video chat has some advantages such as word learning, practice of turn taking and maintenance of familial relationships.
- Video chat has limitations compared to in-person interaction, however, they can be mitigated by a socially contingent co-viewer.