

---

# Gaming Intensively, Connecting Socially?

Exploring the social outcomes of  
gaming in Singapore

**Presenter:** Seah Peiling

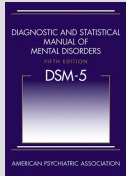
Occupational Therapist, Singhealth Community Hospital

**Supervisor:** Dr Jing Shi

PhD, MSc(OT)

---

# Problematic Gaming



## DSM-5

### Internet Gaming Disorder (IGD)

(American Psychiatric Association, 2013)

“**Persistent and recurrent** use of the Internet to engage in games, often with other players, leading to clinically significant impairment and distress as indicated by five (or more) of the following in a 12-month period ... “

“... Continued **excessive use** of Internet games despite knowledge of psychosocial problems ... “

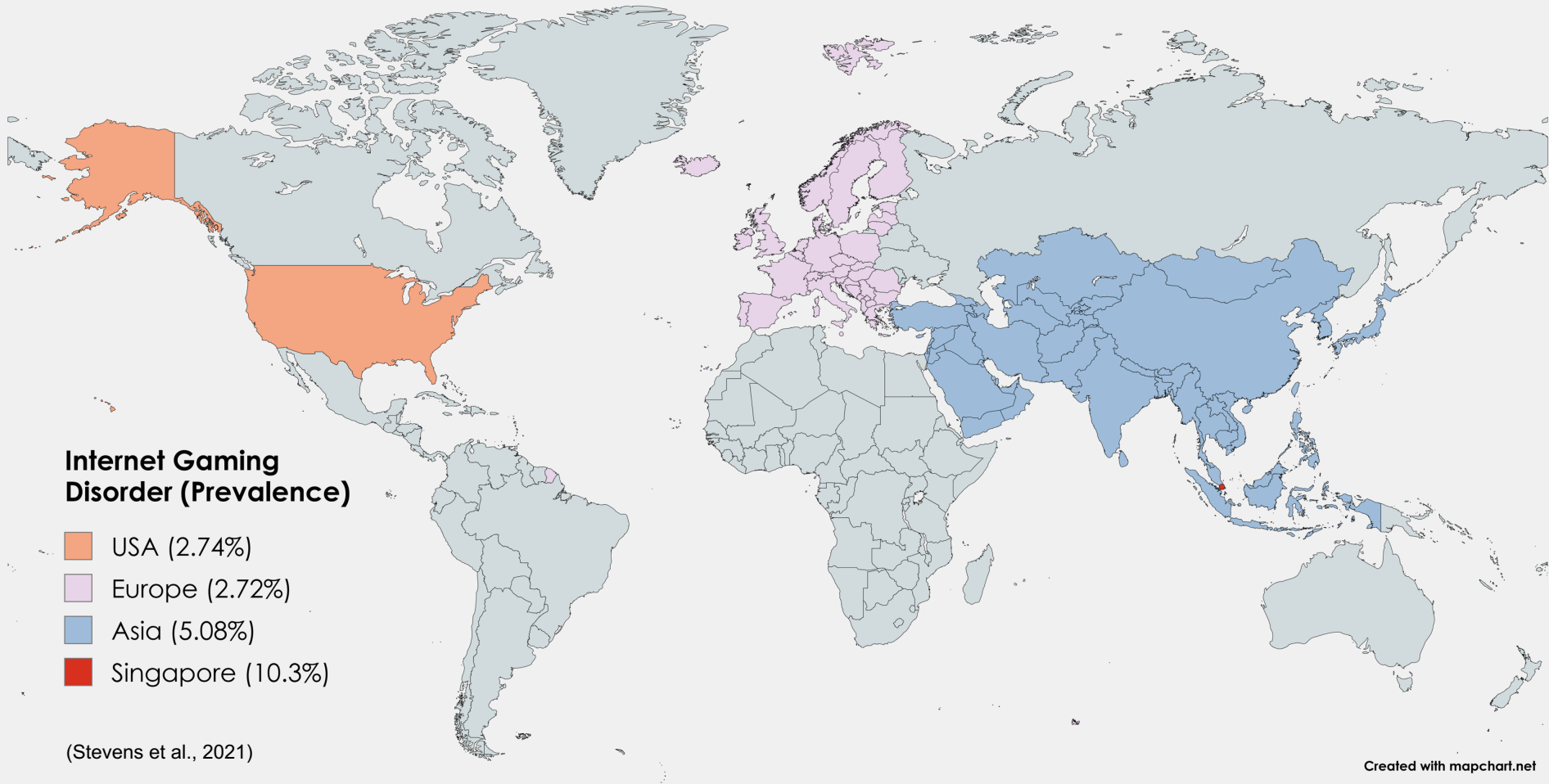


## ICD-11

### Gaming Disorder

(World Health Organization, 2019)

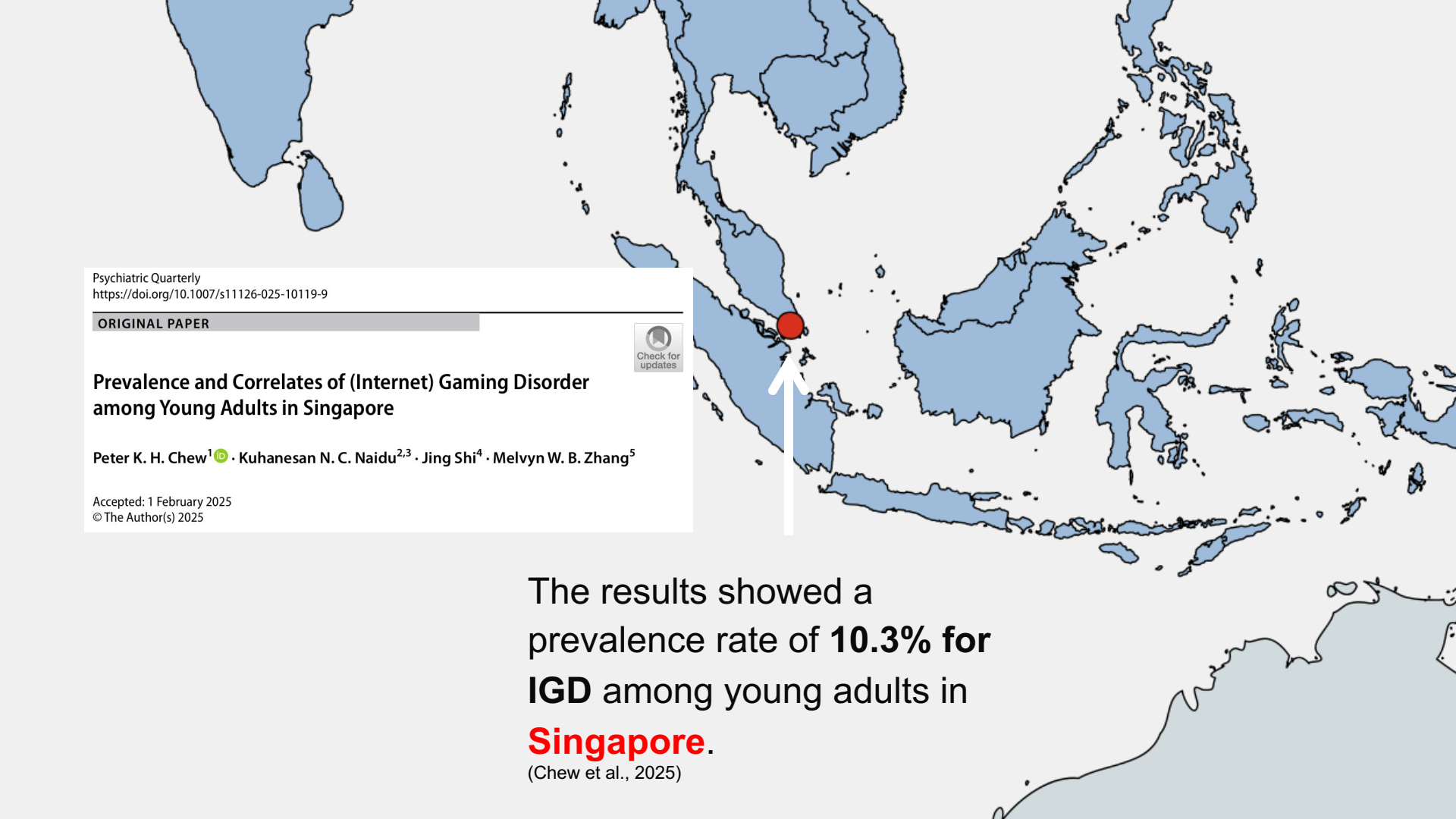
“... characterized by a pattern of **persistent or recurrent** gaming behaviour (‘digital gaming’ or ‘video-gaming’), which may be online (i.e., over the internet) or offline, manifested by: 1) impaired control over gaming (e.g., onset, **frequency, intensity, duration**, termination, context) ... “



### Internet Gaming Disorder (Prevalence)

- USA (2.74%)
- Europe (2.72%)
- Asia (5.08%)
- Singapore (10.3%)

(Stevens et al., 2021)




Psychiatric Quarterly  
<https://doi.org/10.1007/s11126-025-10119-9>

ORIGINAL PAPER



## Prevalence and Correlates of (Internet) Gaming Disorder among Young Adults in Singapore

Peter K. H. Chew<sup>1</sup>  · Kuhanesan N. C. Naidu<sup>2,3</sup> · Jing Shi<sup>4</sup> · Melvyn W. B. Zhang<sup>5</sup>

Accepted: 1 February 2025  
© The Author(s) 2025

The results showed a prevalence rate of **10.3% for IGD** among young adults in **Singapore**.  
(Chew et al., 2025)

# Theoretical Tension



## Time displacement

Time playing video games *encroaches on time available for other activities*



## Social Displacement

*Replaces time spent in face-to-face interaction,* particularly with close friends and family, thus reducing well-being



## Social Augmentation

Digital communication *does not result in a decline in face-to-face interactions* and may even foster them

(Ahn & Shin, 2013; Cummings & Vandewater, 2007; Hall & Liu, 2022; Kraut et al., 1998; Verduyn et al., 2021)

---

When does gaming **support** social participation and well-being and when does it begin to **interfere** with meaningful life roles?

**Research Aim:** To explore the relationship between gaming intensity and self-perceived social outcomes



# Study: Methods

**Quantitative, Cross-sectional survey** (Snodgrass et al., 2022)

<u>Recruitment &amp; Criteria</u>	<p><b>Total sample size:</b> 380 Participants</p> <p>Recruitment via online gaming platforms and forums, gaming events, and through survey panel</p> <p><b>Inclusion criteria:</b></p> <ol style="list-style-type: none"><li>1. Age: 18-35</li><li>2. Active gamers</li><li>3. Residing in Singapore</li></ol> <p><b>Exclusion criteria:</b></p> <ol style="list-style-type: none"><li>1. Straight lining responses</li><li>2. Fail to meet age criteria</li><li>3. Poor quality open-ended responses</li></ol>
<u>Categorization of Gaming Intensity</u>	<p><b>Low gaming intensity:</b> 0 to 19 hours per week</p> <p><b>High gaming intensity:</b> 20 hours or more per week</p>
<u>Survey Items</u>	<p>Closed- and open-ended items assessing gaming involvement, perceived benefits and challenges, avatar experiences, emotions, social context, and demographics</p>

# Self-perceived Social Outcomes

## Positive

1. Sense of belonging
2. Feeling like a member/community
3. Easy and instant connection
4. Committed to help
5. Expand social circle and perspectives
6. Strengthen relationship with friends & family
7. Strong bonds (rely & provide support)

## Negative

1. Isolated & Lonely
2. Caught up in others' opinion
3. Obligation to play for others
4. Conflict with friends & family
5. Continuation to game in toxic environment

**Table 2**  
*Ordinal Logistic Regression*

Predictor (Gaming intensity: High – Low)							
Variables	Estimate	SE	Z	p	Odds ratio (OR)	95% Confidence interval	
						Lower	Upper
<b>Positive social outcomes</b>							
Sense of belonging	1.22	0.204	6	<.001	3.4	2.29	5.09
Member of a team or community	1.15	0.199	5.78	<.001	3.17	2.15	4.71
Easy and instant connection	1.18	0.2	5.89	<.001	3.26	2.21	4.85
Committed to helping gaming friends	0.924	0.198	4.68	<.001	2.52	1.71	3.72
Expands social circle and perspective on life	0.991	0.2	4.95	<.001	2.69	1.82	4
Gaming strengthens friends and family relationships	0.747	0.197	3.79	<.001	2.11	1.44	3.11
Strong bonds with gamers (rely & provide support)	1.18	0.204	5.78	<.001	3.25	2.19	4.87
<b>Negative social outcomes</b>							
Isolated and lonely	0.493	0.189	2.61	0.009	1.64	1.13	2.37
Caught up in others' opinions	0.495	0.188	2.64	0.008	1.64	1.14	2.37
Obligated to play	0.997	0.194	5.14	<.001	2.71	1.86	3.98
Conflict with friends/family	0.685	0.191	3.58	<.001	1.98	1.37	2.89
Continuation of gaming in toxic environments	0.362	0.188	1.93	0.054	1.44	0.995	2.08

## High Intensity Gamers (≥20 hours per week)

**Positive social outcomes**

(F [1, 378] = 54.5,  $p < .001$ ,  $\eta^2 = 0.13$ )

**Negative social outcomes**

(F [1, 378] = 16.1,  $p < .001$ ,  $\eta^2 = 0.04$ )

# Interpreting the social experience of playing video games



# Positive Social Outcomes



## Sense of Identity

Sense of Belonging (OR = **3.4**)  
Feel like a member/Community (OR = **3.17**)

- Frequent exposure of socially rich virtual environment
- **Stronger gamer identity** → **Increased retention**

(Kaye et al., 2017; Neys et al., 2014; O'Connor et al., 2015; Tseng et al., 2015)



## Ease of Connecting

Easy and instant connection with other gamers (OR = **3.26**)

### Unique social affordances of virtual environment

- Sense of anonymity
- Reduce emphasis on physical appearance
- Greater control over pace & timing
- Shared interest

(Arbeau et al., 2020; Hussain & Griffiths, 2008)



## Mutual Support

Strong bonds: Being able to rely on gamers for help and provide support in return (OR = **3.25**)

Virtual gaming environment may serve as a medium to produce both ...

- **Superficial ties** (bridging social capital)
- **Deep social ties** (bonding social capital)

(O'Connor et al., 2015; Pollet et al., 2011; Williams, 2007)

# Negative Social Outcomes



## Obligation to Play

Feel obligated to play for gaming friends, even when unwilling (OR = **2.71**)

- Pressure to conform to group norms
- Non-compliance/Lack of commitment → Social exclusion



## Isolated and Lonely

Feeling isolated and lonely (OR = **1.64**)

- Paradox of online gaming
- Online social interactions may not always fulfil one's offline social needs



# **Clinical Implications**

---

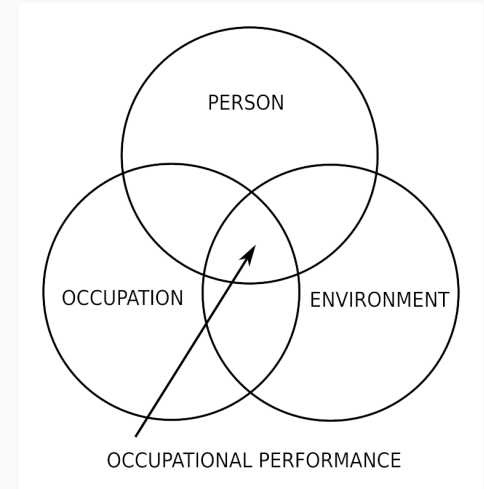
# Reframe “Gaming Hours”

## Gaming Intensity $\neq$ Social Wellbeing

- Time – insufficient indicator of social wellbeing
- Shift from “Quantity” to “**Quality**”

## Other potential co-interacting factors:

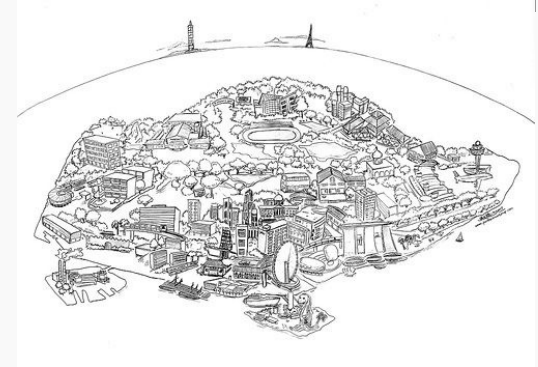
- Game design
- Social dynamic
- Context of play
- In-game experiences
- Motivation
- Daily function, values, and priorities



# Support Balanced Social Participation

- Understand the Drawbacks
- Promotion of healthy blend of online and offline social interactions
- Modality Switching
  - transitioning between different modes of social interaction – online & offline
  - Develop stronger social bonds

(Skoric & Kwan, 2011)



# Conclusion

---

Do you have any questions?



**Seah Peiling**  
peilingseah@outlook.com



**Dr Jing Shi**  
j.shi@alumni.utoronto.ca

# References

- Ahn, D., & Shin, D. H. (2013). Is the social use of media for seeking connectedness or for avoiding social isolation? Mechanisms underlying media use and subjective well-being. *Computers in Human Behavior*, 29(6), 2453–2462. <https://doi.org/10.1016/j.chb.2012.12.022>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890>
- Arbeau, K., Thorpe, C., Stinson, M., Budlong, B., & Wolff, J. (2020). The meaning of the experience of being an online video game player. *Computers in Human Behavior Reports*, 2, 100013. <https://doi.org/10.1016/j.chbr.2020.100013>
- Ballou, N., Vuorre, M., Hakman, T., Magnusson, K., & Przybylski, A. K. (2025). Perceived value of video games, but not hours played, predicts mental well-being in casual adult Nintendo players. *Royal Society Open Science*, 12(3), 241174. <https://doi.org/10.1098/rsos.241174>
- Chew, P. K. H., Naidu, K. N. C., Shi, J., & Zhang, M. W. B. (2025). Prevalence and correlates of (Internet) Gaming Disorder among young adults in Singapore. *Psychiatric Quarterly*. <https://doi.org/10.1007/s11126-025-10119-9>
- Cummings, H. M., & Vandewater, E. A. (2007). Relation of adolescent video game play to time spent in other activities. *Archives of Pediatrics & Adolescent Medicine*, 161(7), 684–689. <https://doi.org/10.1001/archpedi.161.7.684>
- Gong, X., Zhang, K. Z. K., Chen, C., Cheung, C. M. K., & Lee, M. K. O. (2019). Antecedents and consequences of excessive online social gaming: A social learning perspective. *Information Technology & People*, 33(2), 657–688. <https://doi.org/10.1108/ITP-03-2018-0138>
- Hall, J. A., & Liu, D. (2022). Social media use, social displacement, and well-being. *Current Opinion in Psychology*, 46, 101339. <https://doi.org/10.1016/j.copsy.2022.101339>
- Hussain, Z., & Griffiths, M. D. (2008). Gender swapping and socializing in cyberspace: An exploratory study. *CyberPsychology & Behavior*, 11(1), 47–53. <https://doi.org/10.1089/cpb.2007.0020>
- Kaye, L. K., Kowert, R., & Quinn, S. (2017). The role of social identity and online social capital on psychosocial outcomes in MMO players. *Computers in Human Behavior*, 74, 215–223. <https://doi.org/10.1016/j.chb.2017.04.030>
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017–1031. <https://doi.org/10.1037/0003-066X.53.9.1017>
-

# References

- Neys, J. L. D., Jansz, J., & Tan, E. S. H. (2014). Exploring persistence in gaming: The role of self-determination and social identity. *Computers in Human Behavior*, *37*, 196–209. <https://doi.org/10.1016/j.chb.2014.04.047>
- O'Connor, E. L., Longman, H., White, K. M., & Obst, P. L. (2015). Sense of community, social identity and social support among players of Massively Multiplayer Online Games (MMOGs): A qualitative analysis. *Journal of Community & Applied Social Psychology*, *25*(6), 459–473. <https://doi.org/10.1002/casp.2224>
- Pollet, T. V., Roberts, S. G. B., & Dunbar, R. I. M. (2011). Use of social network sites and instant messaging does not lead to increased offline social network size, or to emotionally closer relationships with offline network members. *Cyberpsychology, Behavior, and Social Networking*, *14*(4), 253–258. <https://doi.org/10.1089/cyber.2010.0161>
- Skoric, M. M., & Kwan, G. C. E. (2011). Platforms for mediated sociability and online social capital: The role of Facebook and massively multiplayer online games. *Asian Journal of Communication*, *21*(5), 467–484. <https://doi.org/10.1080/01292986.2011.587014>
- Snodgrass, J., Sagstetter, S., & Zhao, K. (2022). *Gaming and well-being in a global context: A multi-level cultural norm and social network approach*. <https://doi.org/10.17605/OSF.IO/QP7HX>
- Stevens, M. W., Dorstyn, D., Delfabbro, P. H., & King, D. L. (2021). Global prevalence of gaming disorder: A systematic review and meta-analysis. *Australian & New Zealand Journal of Psychiatry*, *55*(6), 553–568. <https://doi.org/10.1177/0004867420962851>
- Tseng, F. C., Huang, H. C., & Teng, C. I. (2015). How do online game communities retain gamers? Social presence and social capital perspectives. *Journal of Computer-Mediated Communication*, *20*(6), 601–614. <https://doi.org/10.1111/jcc4.12141>
- Verduyn, P., Schulte-Strathaus, J. C. C., Kross, E., & Hülshöger, U. R. (2021). When do smartphones displace face-to-face interactions and what to do about it? *Computers in Human Behavior*, *114*, 106550. <https://doi.org/10.1016/j.chb.2020.106550>
- Verhagen, H., & Johansson, M. (2009). Demystifying guilds: MMORPG-playing and norms. *Proceedings of DiGRA 2009 Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory*.
- Williams, D. (2007). The impact of time online: Social capital and cyberbalkanization. *CyberPsychology & Behavior*, *10*(3), 398–406. <https://doi.org/10.1089/cpb.2006.9939>
- World Health Organization (2019). *International Statistical Classification of Diseases and Related Health Problems* (11th ed.). <https://icd.who.int/>