Mental health, substance use, and clinically relevant DSM-5 symptoms of internet gaming disorder in young people

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THE HEALTHY GAMER PROJECT

QUT Queensland University of Technology

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Flinders University

University of York

UQAC

University of Saskatchewan

Acknowledgement of Country

The University of Queensland (UQ) acknowledges the Traditional Owners and their custodianship of the lands on which we meet.

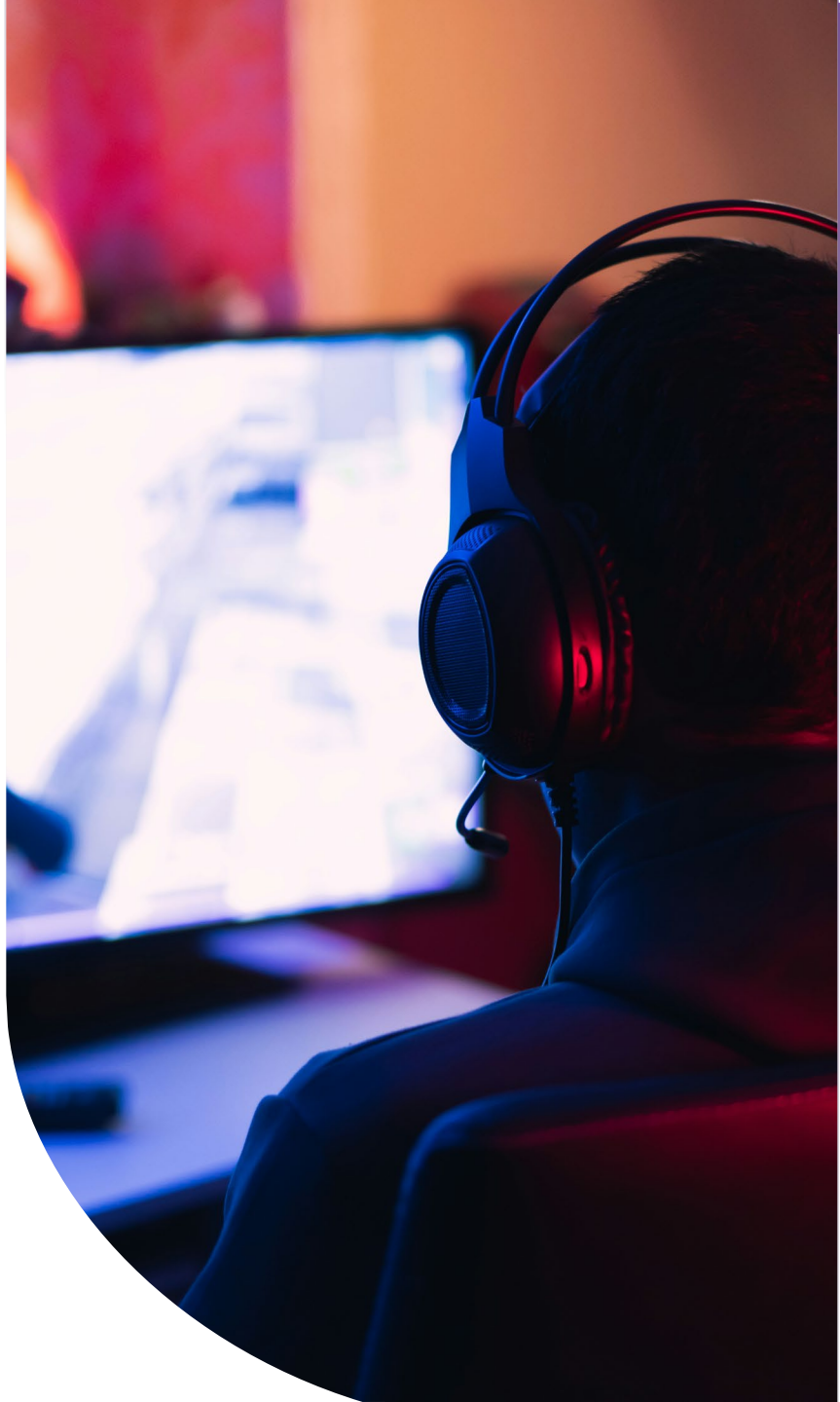
We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australian and global society.

Image: Digital reproduction of *A guidance through time* by Casey Coolwell and Kyra Mancktelow

Concerns about Gaming and Its Impacts

- Increasing concerns surrounding the prevalence and potential negative impact of videogame play in young people.
- Concerns reflected in inclusion of Internet Gaming Disorder (IGD) in the DSM-5.
- Significant associations between videogame play and IGD symptoms:
  - Depression (De Pasquale et al., 2020, Gao et al., 2022, González-Bueso et al., 2018, King et al., 2018)
  - Anxiety (Gao et al., 2022, González-Bueso et al., 2018)
  - Attention-deficit hyperactivity disorder (Gao et al., 2022, González-Bueso et al., 2018)
  - Obsessive compulsive disorder (González-Bueso et al., 2018)
  - Social phobia (González-Bueso et al., 2018)
  - PTSD (Yuan et al., 2022)
  - **Problematic alcohol use** (Wartberg & Kammerl, 2020)



Gaps in Current Research

Existing literature is primarily **cross-sectional**.

Minimal research on substance use and IGD.

Lack of **longitudinal studies** → Limited understanding of **factors that increase IGD** in young people.

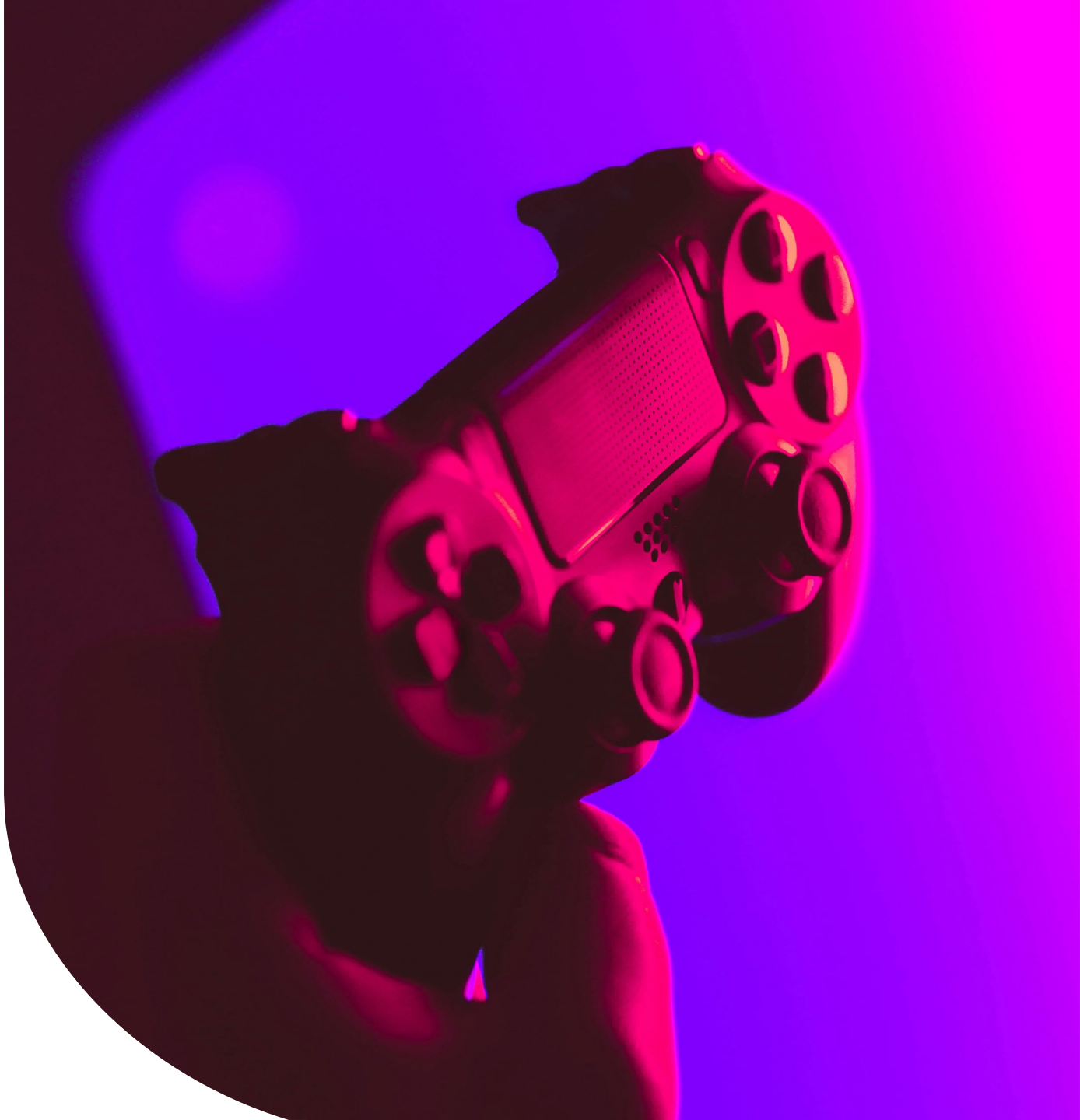
Our Study

The Healthy Gamer Project

Prospective study to identify key risk factors and protective mechanisms in the development of IGD in young people.

Aims

To describe the baseline associations between mental health, substance use, and the clinically relevant DSM-5 symptoms of IGD in a large sample of young people.



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Participants

Young people
(16-25 years old)

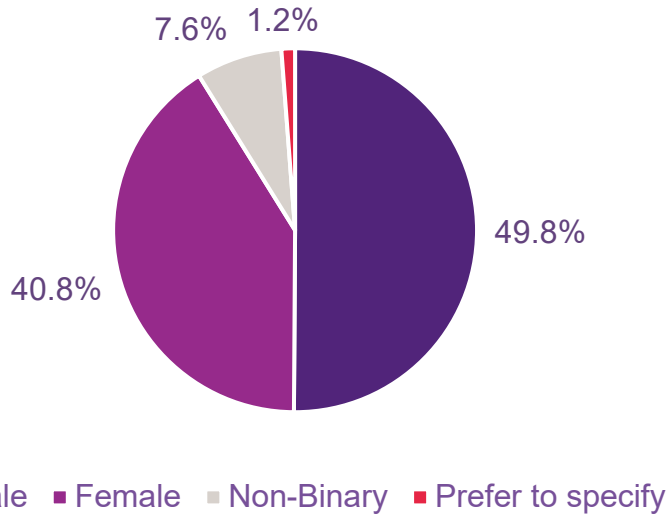
Live in Australia

Play videogames
3+ times per month

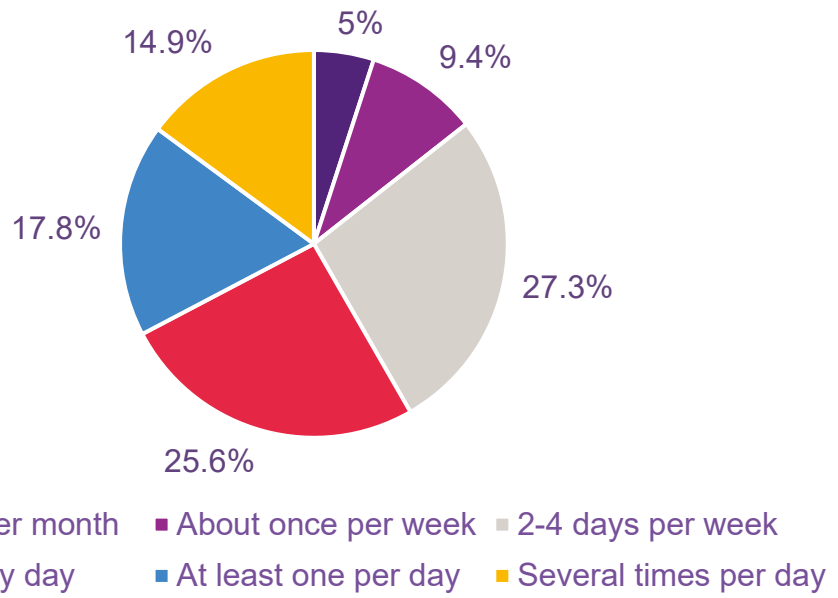
Recruited via social media

1427 of **2888** participants
were randomly assigned to complete
mental health and **substance use** measures.
(*M*=19.67 years, *SD*=2.71)

Gender



Frequency of Videogame Play in the Past Month



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Measures & Analyses

- **30-50 minute online baseline (BL) survey**, measures including:

Mental Health
- Depression: PHQ-8
- Anxiety: GAD-7
- PTSD: PC-PTSD-5
- ADHD: ASRS-5

Substance Use
- WHO ASSIST: alcohol, tobacco, cannabis, amphetamines

Internet Gaming Disorder
- IGDT-10

Analyses

- BL associations first examined in separate logistic regression models
  - **mental health** (depression, anxiety, PTSD, ADHD) and
  - **substance use** (tobacco, alcohol, cannabis, and methamphetamines)
  - **IGD**
  - **Controlled for**: age, gender, and frequency of videogame play.
- A final model of significant predictors of IGD was then run.

Results

147 young people (10.3%)
were identified as having
clinically relevant symptoms of DSM-5 IGD
(i.e., a score of ≥5 on IGDT-10).

Separate Logistic Regression Models (controlling for age, gender and frequency of play)

Mental Health

Depression and **ADHD**, but not anxiety and PTSD, were significantly associated with IGD symptoms.

Substance Use

Alcohol and **tobacco use**, but not cannabis and amphetamine use, were significantly associated with IGD symptoms.

Results

Final logistic regression model of significant predictors contained **depression**, **ADHD symptoms**, **tobacco use**, and **alcohol use**.

Young people who…

- Were older ↑
- Identified as male
- Played videogames more frequently ↑
- Reported greater depression symptoms ↑
- Reported more ADHD symptoms ↑
- Drank alcohol less frequently ↓

…were **more** likely to have clinically relevant DSM-5 IGD symptoms.

Implications

- Present study identified potential risk and protective factors for clinically relevant symptoms of IGD.
  - These risk factors and protective mechanisms will be examined longitudinally in the prospective study.
- Identifying factors which may place young people at a higher risk of IGD can inform the future development of prevention programs.

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