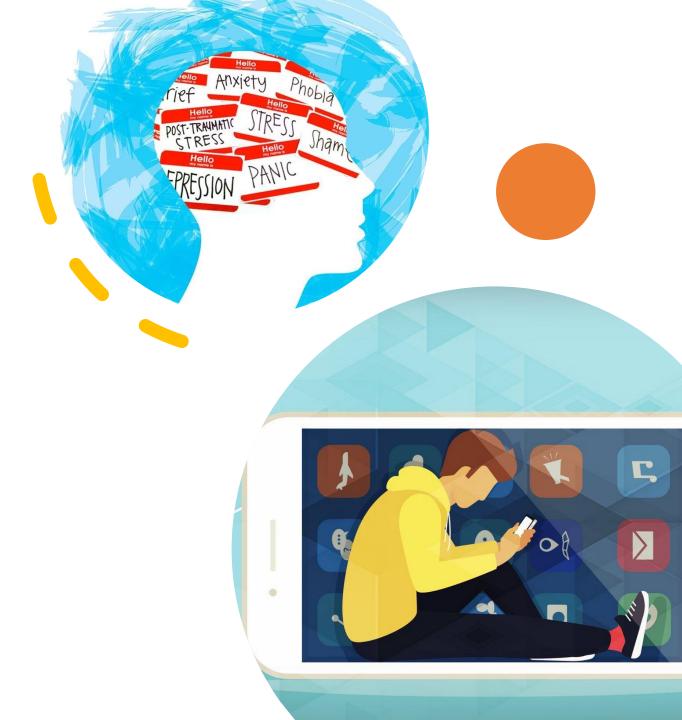
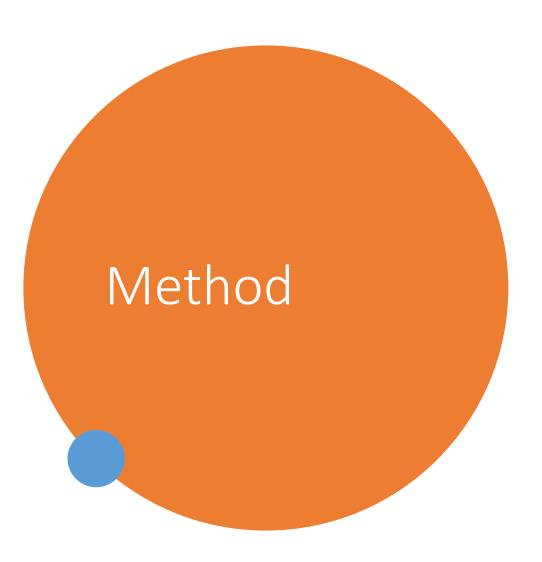
Impact of electronic screen time on psychological well-being, selfharm and suicidal tendencies of adolescents in Zhejiang, China

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Introduction and Background

- According to WHO, mental health conditions account for 16% of the global burden of disease and injury in adolescents aged 10-19 years.
- Increased electronic screen time and social media exposure have become particularly problematic.
- Very few studies have examined the impact of screen-based behaviours and social media exposure on Chinese adolescent mental health, self-harm and suicidal tendencies.
- The aim of this research is to explore the prevalence, characteristics and impact of electronic screen time on psychological wellbeing, self-harm and suicidal tendencies of adolescents in Zhejiang, China.





- 2830 self-reported questionnaire administer between 2019-2021
- Participants included students in grades 6-12 who were aged 11-21 in Zhejiang, China
- Age, gender, location, academic performance, selfreported health status and sleep duration were basic information collected
- Outcome measures included depression, anxiety, selfharm, suicidal thoughts and suicidal attempts
- Crude odd ratios were determined in bivariate analysis
- Adjusted odds ratios were obtained with binary logistic regression

Associations between electronic screen use and mental health measures

Males

| | Depression | | Anxiety | | Self-harm | | Suicidal Thought | | Suicidal Attempt | |
|---|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|
| | Adjusted OR (95% CI) ^a | P- value |
| Time spent on electronic screens (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref |
| - ≥2 | 1.09 (0.8-1.49) | 0.57 | 1.03 (0.68-1.56) | 0.88 | 1.6 (1.1-2.37) | 0.02 | 1.25 (0.93-1.66) | 0.14 | 1.42 (0.87-2.31) | 0.16 |
| Time spent on mobile | | | | | _ | | | | | |
| phones (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref |
| - ≥2 | 1.17 (0.85-1.6) | 0.35 | 1.16 (0.77-1.76) | 0.48 | 1.78 (1.2-2.63) | 0.004 | 1.04 (0.77-1.41) | 0.8 | 1.32 (0.79-2.21) | 0.28 |
| Time spent watching TV | | | | | | | · | | | |
| (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref |
| - ≥2 | 0.84 (0.39-1.8) | 0.65 | 1.26 (0.51-3.13) | 0.62 | 0.67 (0.22-2) | 0.47 | 0.69 (0.33-1.46) | 0.33 | 0.31 (0.04-2.34) | 0.25 |

Females

| | Depression | | Anxiety | | Self-harm | | Suicidal Thought | | Suicidal Attempt | |
|---|--------------------------------------|-------------|--------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|
| | Adjusted OR (95% CI) ^a | P- value | Adjusted OR (95% CI)ª | P- value | Adjusted OR (95% CI) ^a | P- value | Adjusted OR (95% CI) ^a | P- value | Adjusted OR (95% CI) ^a | P- value |
| Time spent on electronic screens (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref |
| - ≥2 | 1.3 (0.94-1.81) | 0.11 | 1.24 (0.83-1.85) | 0.3 | 2.22 (1.58-3.12) | <0.001 | 1.64 (1.19-2.26) | 0.002 | 2.78 (1.81-4.29) | <0.001 |
| Time spent on mobile phones (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref |
| - ≥2 | 1.07 (0.77-1.48) | 0.7 | 1.38 (0.93-2.05) | 0.11 | 1.88 (1.34-2.65) | <0.001 | 1.61 (1.17-2.22) | 0.003 | 2.22 (1.43-3.45) | <0.001 |
| Time spent watching TV | | | | | <u> </u> | | | | | |
| (hour/day) | | | | | | | | | | |
| - <2 | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref | Ref |
| - ≥2 | 0.94 (0.51-1.75) | 0.85 | 1.4 (0.68-2.89) | 0.36 | 1.53 (0.8-2.95) | 0.2 | 1.97 (1.04-3.75) | 0.04 | 1.57 (0.69-3.56) | 0.29 |

Ref=Reference category

^aAdjusting or physical health, academic performance, weekday sleep duration, weekend sleep duration and previous participation in mental health course

TARGET 3·4



REDUCE MORTALITY
FROM
NON-COMMUNICABLE
DISEASES AND
PROMOTE MENTAL
HEALTH

Implications and Conclusion

- This study contributes to the small amount of literature found on the impact of electronic screen use on the well-being of Chinese adolescents.
- Findings from this study can be used to design interventions which can improve the well-being of Chinese adolescents. Through increasing physical activity, encouraging longer sleep duration and implementing mental health courses at school.
- Specifically, restricting time on electronic screens and mobile phones, and gender specific approaches can improve the psychological well-being of Chinese adolescents and help China achieve SDG goal 3.4.