







ARE SOCIAL SKILLS THE CRITICAL LINK BETWEEN ADHD AND RISKY INTERNET USE?

Fatma Serra Çelik, Saliha B. Selman & Songül Derin

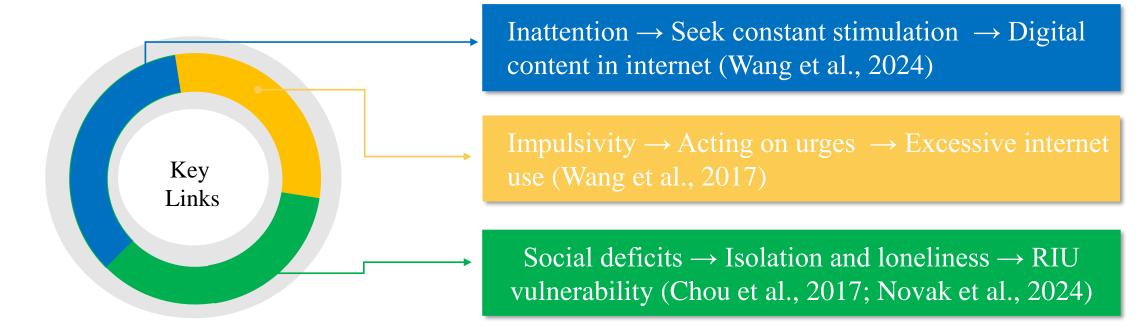
- 1 Bezmialem Vakif University, Medicine Faculty, Istanbul, Turkiye
- 2 Human Development & Family Studies, University of Wisconsin-Madison, Madison, WI, USA
- 3 Child and Adolescent Psychiatry, Bezmialem Vakif University, Istanbul, Turkiye

AGENDA

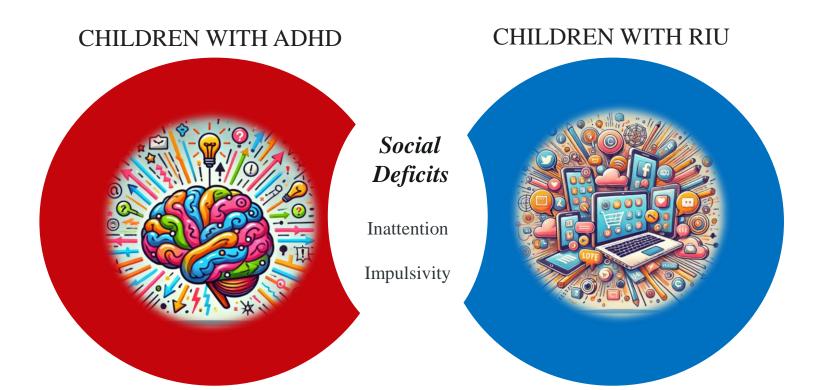
- □ Introduction
 - Background
 - Gaps
 - Aims
- Method
- Results
- Discussion
 - Conclusion
 - Strengths & Limitations

BACKGROUND

- **RISKY INTERNET USE (RIU)**: Excessive internet use leading to mental, social, and behavioral issues (Theopilus et al., 2024).
- ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD): Neurodevelopmental disorder with, inattention, hyperactivity, and impulsivity (Drechsler et al., 2020), *closely associated with*
 - Social deficits (Carpenter et al., 2009)



BACKGROUND



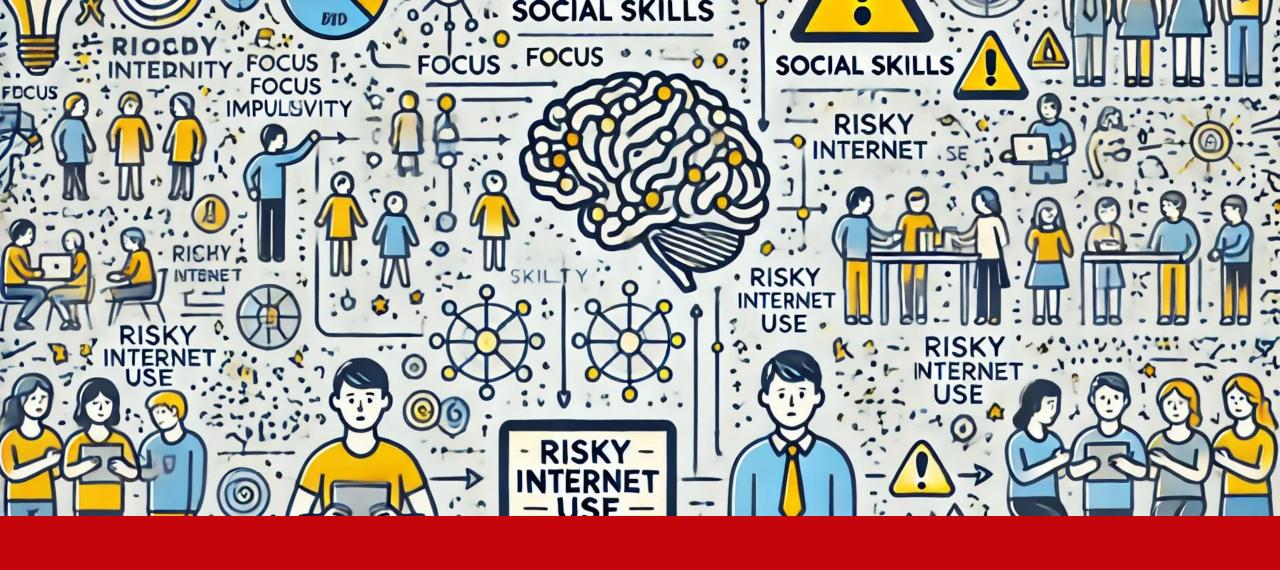
GAPS

☐ Few studies focus on the potential role of social skills deficits in the ADHD-RIU link (Chou et al., 2017)

■ Most studies are conducted in high-income countries, leaving gaps in understanding the global situation

AIMS

- **Research Question**: How do social skills deficits play a role in the association between an ADHD diagnosis and RIU in youth?
- ☐ Aim: To explore the role of social skills as a potential pathway linking ADHD diagnosis to higher levels of RIU in youth
- ☐ **Hypothesis**: Social skills deficits play a role in the association between ADHD and RIU, acting as a key pathway linking the two



Methods

METHODS

- □Sample Demographics ♣
 - 80% power for a 95% confidence interval n1 = n2 = 71

Case Group

- 71 children with ADHD
- Age: 6-12 years
- No psychiatric medication
- No other neurologic/psychiatric condition
- Referred to the clinic

Control Group

- 71 children with no ADHD
- Age: 6-12 years
- No psychiatric medication
- No neurologic/psychiatric condition
- Snowball technique

METHODS

☐ Measures & Data Collection

ADHD	DSM V and Conners Parent Rating Scale
Risky Internet Use	Parent-Child Internet Addiction Scale
Social Skills	Social Skills Evaluation Scale
Covariates	Sociodemographic Form

Case Group

- Interviews are conducted with parents
- Clinical sessions

Control Group

- Interviews are conducted with parents
- Face to face / Phone calls



Results

RESULTS

Sample Demographics

	Case Group	Control Group	P Value
Gender Male Female	18 (%25) 53 (%75)	32 (%45) 39 (%55)	0.02
Birth Timing Preterm Term Postterm	9 (%12.7) 62 (&87.33) 0	15 (%21.1) 48 (%67.6) 8 (%11.3)	0.003
Number of Siblings 1 2 3 4 5	20 (%28.6) 39 (%55.7) 10 (%14.3) 1 (%1.6) 0	9 (%12.7) 37 (%52.1) 15 (%21.1) 7 (%9.9) 2 (%2.8) 1 (%1.4)	0.02
Mother Education Less than high school High school Associate degree University Graduate degree	26 (%37.1) 19 (%27.1) 0 25 (%35.7)	4 (%5.6) 17 (%23.9) 15 (%21.1) 28 (%39.4) 16 (%21.1)	<0.001
Father Education Less than high school High school Associate degree University Graduate degree	29 (%41.4) 22 (%31.4) 0 19 (%27.1) 0	4 (%5.6) 12 (%16.9) 3 (%4.2) 41 (%57.7) 11 (%15.5)	<0.001
Household Income Low Medium High	14 (%19.7) 21 (%29.6) 36 (%50.7)	1 (%1.4) 13 (%18.3) 57 (%30.3)	<0.001

RESULTS Group Differences

	Control Group (N=71)	Case Group (N=71)	p-value
Conners Total Score	26.1 (15.9)	62.4 (12.7)	< 0.001
Risky Internet Use Total Score	20.2 (16.4)	28.8 (21.9	0.009
Social Skills Total Score	219 (35.1)	107 (34.2)	< 0.001

RESULTS

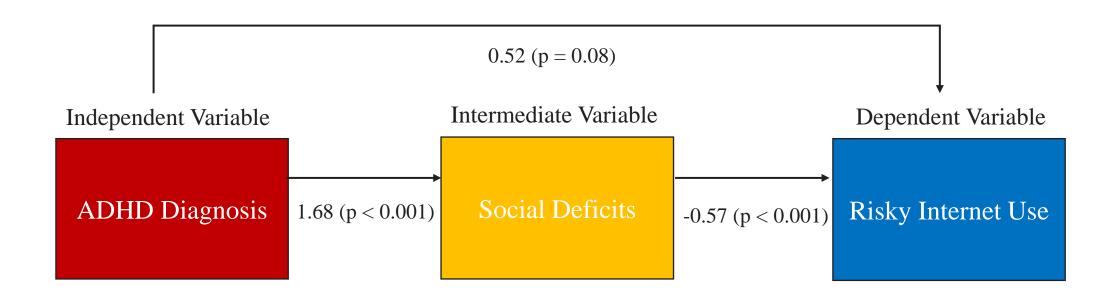
Path Analysis

Direct Paths		Std. B	p
ADHD Diagnosis	→ RIU	.52	.08
ADHD Diagnosis	→ Social Skills	1.68	<.001
Social Skills	→ RIU	57	<.001
Indirect Path			
ADHD on RIU through So	ocial Skills	96	.001
Total effect		43	.009
Covariates			
Gender	→ ADHD Diagnosis	13	.04
Birth Timing	→ ADHD Diagnosis	17	.002
Total number of siblings	→ ADHD Diagnosis	.16	<.001
Household Income	→ ADHD Diagnosis	.07	.21
Mother Education	→ ADHD Diagnosis	.09	.02
Father Education	→ ADHD Diagnosis	.15	<.001

RESULTS

Path Analysis

Figure 1. The path model examining the association between ADHD diagnosis, social skills and risky internet use in children



CONCLUSION

- □ Social skills deficits play a role in the association between ADHD and RIU
- □ Children with ADHD are more likely to engage in risky internet behavior because of their impaired social skills, rather than directly due to their ADHD diagnosis
- □ Clinical interventions targeting both ADHD symptoms and social skill development could mitigate the risk of RIU

STRENGTHS

- □ No previous research has specifically examined this relationship
- Excellent Cronbach's alpha scores indicated the credibility
- ☐ Direct clinical relevance
- ☐ Turkish sample adds to cross-cultural data

LIMITATIONS

- Cross-sectional design precludes causal conclusions
- ☐ Reliance on self-report measures may introduce bias
- Absence of teacher-reported measures could limit understanding of children's social functioning across contexts

FUTURE DIRECTIONS

- Longitudinal research to clarify the causal pathways among ADHD, social skills, and RIU
- □ Develop **interventions** integrating social skills training into ADHD treatment plans
- ☐ Research investigating long-term effectiveness of these interventions

REFERENCES

- 1. Carpenter Rich, E., Loo, S. K., Yang, M., Dang, J., & Smalley, S. L. (2009). Social functioning difficulties in ADHD: association with PDD risk. Clinical child psychology and psychiatry, 14(3), 329–344. https://doi.org/10.1177/1359104508100890
- 2. Chou, W. J., Huang, M. F., Chang, Y. P., Chen, Y. M., Hu, H. F., & Yen, C. F. (2017). Social skills deficits and their association with Internet addiction and activities in adolescents with attention-deficit/hyperactivity disorder. Journal of behavioral addictions, 6(1), 42–50. https://doi.org/10.1556/2006.6.2017.005
- 3. Drechsler, R., Brem, S., Brandeis, D., Grünblatt, E., Berger, G., & Walitza, S. (2020). ADHD: Current Concepts and Treatments in Children and Adolescents. *Neuropediatrics*, 51(5), 315–335. https://doi.org/10.1055/s0040-1701658
- 4. El Archi, S., Barrault, S., Brunault, P., Ribadier, A., & Varescon, I. (2022). Co-occurrence of adult ADHD symptoms and problematic Internet use and its links with impulsivity, emotion regulation, anxiety, and depression. *Frontiers in Psychiatry*, *13*, 792206. https://doi.org/10.3389/fpsyt.2022.792206
- 5. Novak, L., Malinakova, K., Trnka, R., Mikoska, P., Sverak, T., Kiiski, H., Tavel, P., & van Dijk, J. P. (2024). Neural bases of social deficits in ADHD: A systematic review. Does the Theory of Mind matter?. *Brain research bulletin*, 215, 111011. https://doi.org/10.1016/j.brainresbull.2024.111011
- 6. Theopilus, Y., Al Mahmud, A., Davis, H., & Octavia, J. R. (2024). Preventive Interventions for Internet in Young Children: Systematic Review. *JMIR mental health*, 11, e56896. https://doi.org/10.2196/56896
- 7. Wang, B. qian, Yao, N. qi, Zhou, X., Liu, J., & Lv, Z. tao. (2017). The association between attention deficit/hyperactivity disorder and internet addiction: A systematic review and meta-analysis. *BMC Psychiatry*, 17(1). https://doi.org/10.1186/s12888-017-1408-x
- 8. Wang, J. L., Yin, X. Q., Wang, H. Z., King, D. L., & Rost, D. H. (2024). The longitudinal associations between internet addiction and ADHD symptoms among adolescents. Journal of behavioral addictions, 13(1), 191–204. https://doi.org/10.1556/2006.2023.00080

NEXT STEPS

□ Conference Poster Presentation: Are Social Skills the critical link between ADHD and RIU – ESCAP, 2025 (Accepted)



■ **Manuscript Publication:** Child and Adolescent Psychiatry and Mental Health – (Under peer review)



Thank you!









Contact information: serraceliik@gmail.com