# Nalan Zhan

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#### **EDUCATION**

#### Jiangxi Normal University

9/2022-6/2025 (Expected)

M.Ed. in Psychology, School of Psychology

Advisor: Fulei Geng, Ph.D

Jiangxi Normal University

9/2018-6/2022

B.S. in Psychology, School of Psychology

#### RESEARCH INTERESTS

Trauma and stress; PTSD; anxiety; irritability; psychosocial and pathological mechanisms; protective and risk factors; mental health; recovery; uncertainty; memory

#### RESEARCH EXPERIENCES

*Note.* [x] refers to the journal articles or working papers in the publication list.

# Master & Undergraduate Student, Jiangxi Normal University Advisor: Fulei Geng, Ph.D.

9/2019-Present

- My responsibilities served to facilitate multifaceted research on trauma and stress-related disorders across diverse populations (e.g., children and adults, prisoners, cancer patients). Focus areas include: (1) psychosocial and pathological mechanisms of PTSD and its subtypes; (2) protective and risk factors for psychological distress, emphasizing childhood experiences and intergenerational transmission studies.
- I engaged comprehensively in all research phases, including preparing IRB applications, developing surveys and programming tools, conducting data collection and analysis, creating visualizations, writing manuscripts, revising papers and addressing reviewer comments, and contributing to proposal writing and funding acquisition.

Project: Associations between Default Mode Network Functional Connectivity and Conditioning Fear Extinction in PTSD: A Resting-state Functional MRI Study

Advisor: Fulei Geng

Collaborators: Kailiang Zhang and Dawei Wang (Qilu Hospital, Shandong University)

- Designed the study, developed experimental protocols using E-prime, and collected behavioral (self-report), physiological (EDA), and imaging (e.g., sMRI, rs-fMRI and fMRI) data using a laptop, MP160 BIOPAC system, and MRI scanner in cancer patients and healthy control group.
- Planned to conduct data preprocessing and analysis: preprocessing EDA data with Acqknowledge and imaging data with MATLAB; analyzing behavioral, physiological, and imaging data using R, SPSS, and Excel together; and prepared final results for reporting and manuscript writing.
- Current progress: Preparing submissions to and addressing responses from the IRB (e.g., applications, continuing reviews, amendments).

Project: Relationships between Irritability, PTSD, and Depression at the Disorder Level and the Symptom Level

Advisor: Fulei Geng

- Conducted latent profile analysis using Mplus to identify possible profile solutions for PTSD, irritability, and aggression in trauma-exposed participants; further examined relationships between irritability, PTSD, and depression at the disorder level.
- Utilized R Studio to perform network analysis, exploratory graph analysis, cross-lagged panel network model analysis, and network comparisons to investigate cross-sectional and longitudinal relationships between symptoms of irritability, PTSD, and depression at the symptom level.
- Wrote one manuscript published in *Psychological Trauma: Theory, Research, Practice, and Policy* [2], one manuscript submitted for publication [14], and a poster accepted for presentation [17].

Project: Psychometric Properties of the Posttraumatic Cognitions Inventory-9 in China Advisor: Fulei Geng

- Contributed to the development of questionnaires and data collection..
- Examined the psychometric properties of the PTCI-9 through confirmatory factor analysis and measurement invariance using Mplus, and assessed its reliability and validity using SPSS.
- Wrote one manuscript, addressed reviewers' and editor's comments, resulting in a publication in *Psychological Assessment* <sup>[1]</sup>.

Project: Intergenerational Transmission of Psychological Distress and Lifestyle Factors Advisor: Fulei Geng

- Conducted path analysis using Mplus to investigate potential pathways from parental COVID-related worries, lifestyles, and insomnia to children's insomnia.
- Wrote one manuscript, addressed reviewers' and editor's comments, resulting in a publication in the *Journal of Sleep Research* [3].
- Assisted with revisions and data analysis in other intergenerational studies investigating the effects of lifestyles, childhood neglect, and emotion regulation on the transmission of depression and anxiety from parents to children during COVID-19, resulting in publications in the *Journal of Affective Disorders*<sup>[10]</sup> and *Child Abuse & Neglect*<sup>[8]</sup>, respectively.

Project: Impact of Childhood Experiences on Psychological Outcomes

Advisor: Fulei Geng

Collaborator: Hong Wang Fung, Ph.D. (Hong Kong Baptist University)

- Examined and validated the psychometric properties of the Chinese version of the Benevolent Childhood Experiences scale using SPSS and Mplus, and analyzed the independent and interactive effects of positive childhood experiences, lifetime trauma, and childhood trauma on PTSD symptoms, depression, and prosocial behaviors using multiple linear regression.
- Wrote one manuscript, addressed reviewer and editor comments, resulting in a publication in the *European Journal of Psychotraumatology*<sup>[4]</sup>.
- Contributed to a collaborative project with Hong Wang Fung, resulting in a publication in the *International Journal of Social Psychiatry*<sup>[6]</sup>.
- Contributed to data analyses, prepared figures, and reviewed and revised another manuscript on the relationship between positive and adverse childhood experiences and adulthood insomnia, resulting in a publication in *Sleep Medicine*<sup>[13]</sup>.

(Note. \* indicates the correspondent author)

# **First Author**

- 1. **Zhan, N.**, Gao, C., Cao, Y., Li, F., & Geng, F.\* (2024). Factor structure, measurement invariance, and psychometric properties of the Posttraumatic Cognitions Inventory-9 in Chinese adolescents and adults. *Psychological Assessment*. [doi]
- 2. **Zhan, N.**, Zhang, L., Gong, M., & Geng, F.\* (2023). Clinical correlates of irritability, anger, hostility, and aggression in posttraumatic stress disorder. *Psychological Trauma: Theory, Research, Practice, and Policy*, Advance online publication. [doi]
- 3. **Zhan, N.**, Zhang, Y., Xie, D., & Geng, F.\* (2022). The associations of parental COVID-19 related worries, lifestyles, and insomnia with child insomnia during the COVID-19 outbreak. *Journal of Sleep Research*, e13590. [doi]
- 4. **Zhan, N.**, Xie, D., Zou, J., Wang, J., & Geng, F.\* (2021). The validity and reliability of benevolent childhood experiences scale in Chinese community adults. *European Journal of Psychotraumatology*, *12*(1), 1945747. [doi]

#### Co-Author

- 5. Yuan, D., Li, Q., **Zhan, N.**, Zhang, L., Wang, J., Liu, M., & Geng, F.\* (2023). Longitudinal associations of menstrual characteristics with mental health problems among Chinese girls. *European Child & Adolescent Psychiatry*, [doi]
- Fung, H. W.\*, Geng, F., Yuan, D., Zhan, N., & Lee, V. W. P. (2023). Childhood experiences and dissociation among high school students in China: Theoretical reexamination and clinical implications. *The International Journal of Social Psychiatry*, 207640231181528. Advance online publication. [doi]
- 7. Geng, F.\*, Liang, Y., **Zhan, N.**, & Wang, J. (2022). Prevalence, clinical features, and psychological characteristics of dissociative subtype of posttraumatic stress disorder in Chinese prisoners. *Journal of Trauma & Dissociation*, 24(1), 63–78. [doi]
- 8. Zhang, Y., **Zhan, N.**, Long, M., Xie, D., & Geng, F.\* (2022). Associations of childhood neglect, difficulties in emotion regulation, and psychological distresses to COVID-19 pandemic: An intergenerational analysis. *Child Abuse & Neglect*, 129, 105674. [doi]
- 9. Geng, F.\*, Lu, H., Zhang, Y., **Zhan, N.**, Zhang, L., & Liu, M. (2022). Dissociative depression and its related clinical and psychological characteristics among Chinese prisoners: A latent class analysis. *Current Psychology*, 42(15061 15069). [doi]
- 10. Zhang, Y., **Zhan, N.**, Zou, J., Xie, D., Liu, M., & Geng, F.\* (2022). The transmission of psychological distress and lifestyles from parents to children during COVID-19. *Journal of Affective Disorders*, 303, 74-81. [doi]
- 11. Zhang, Y., Li, Q., Hu, W., **Zhan, N.**, Zou, J., Wang, J., & Geng, F.\* (2022). The relationships between screen time and mental health problems among Chinese adults. *Journal of Psychiatric Research*, *146*, 279-285. [doi]
- 12. Geng, F.\*, Tu, L., **Zhan, N.**, Zhang, Y., & Wang, J. (2021). Associations of substance abuse histories and gambling addiction history with post-traumatic stress symptoms and depressive symptoms among Chinese prisoners. *European Journal of Psychotraumatology*, 12(1), 1906022. [doi]

13. Geng, F.\*, Zou, J., Liang, Y., **Zhan, N.**, Li, S., & Wang, J. (2021). Associations of positive and adverse childhood experiences and adulthood insomnia in a community sample of Chinese adults. *Sleep Medicine*, 80, 46-51. [doi]

## **Working Papers**

- 14. **Zhan, N.**, Li, F., Fung, H. W., Zhang, K., Wang, J., & Geng, F.\* (submitted). A symptom level perspective on irritability, PTSD, and depression in children and adults.
- 15. Zhang, K., **Zhan, N.**, Xue, X., Man, J., Li, F., & Geng, F.\* (submitted). Associations among fear of cancer recurrence, posttraumatic stress symptoms, depression and irritability in cancer patients: A network analysis.
- 16. Geng, F.\*, **Zhan, N.**, Li, F., Xu, F., Li, Y., & Wang, J. (submitted). Examination of irritability trajectories, correlates and long-term outcomes: A prospective case-cohort study combined with experience sampling method.

#### **Conference Presentations**

17. **Zhan, N.**, & Geng, F.\* (2024, September). Longitudinal Relationships Between Posttraumatic Stress Disorder, Irritability, Depression in Trauma-Exposed Children and Adolescents: A Cross-Lagged Panel Network Analysis. Poster accepted for presentation at the 40<sup>th</sup> annual meeting of the International Society for Traumatic Stress Studies conference in Boston, MA.

#### PROFESSIONAL SKILLS

Languages	Mandarin (native), English
Softwares	SPSS, R, Mplus, E-prime,

AcqKnowledge (SCR Analysis),

MATLAB (including DPABI, BrainNet Viewer, etc.) Adobe Photoshop, Adobe Illustrator, GraphPad Prism

**Experimental Skills** 

 $EDA \ \& \ EMG \ collection \ and \ analysis \ (MP160 \ BIOPAC \ system, \ AcqKnowledge;$ 

Xeye Human Startle system),

Shock system (Digitimer DS7A Stimulator),

VBM and resting-state fMRI (e.g., prepocessing and functional connectivity)

Basic behavioral experiments and psychometric analysis, Advanced statistical methods (e.g., SEM, network analysis)

#### **GRANTS**

Provincial Innovation Program for Graduates, Jiangxi Province

2023

# SCHOLARSHIPS, HONORS, AND AWARDS

First Prize Scholarship of Outstanding Graduates, Jiangxi Province Government	2023/2024
National Scholarship, Ministry of Education of China	2023
Outstanding Undergraduate Thesis, Jiangxi Normal University	2022
Outstanding Undergraduates, Jiangxi Normal University	2022
First Prize Scholarship of Outstanding Undergraduates, Jiangxi Normal University	2019/2021/2022
Second Prize Scholarship of Outstanding Undergraduates, Jiangxi Normal University	2020

### PROFESSIONAL EXPERIENCES

# **Abstract Reviewer**

The 40<sup>th</sup> Annual Meeting of the International Society for Traumatic Stress Studies conference 3/2024

# Memberships

Student member of the International Society of Traumatic Stress Studies	2023-2026
Student member of the American Psychological Association	2023-2025
Student member of the Chinese Psychological Society	2023-2024

# OTHER WORK EXPERIENCES

Psychology Teacher Intern, Nanchang No.3 Middle School, Nanchang, Jiangxi	9/2021-12/2021
Psychology Teacher Practicum, Maqiu Senior High School, Nanchang, Jiangxi	3/2021
New media operation center for college students, School of Psychology	9/2018-6/2021
Summer Social Practice, Yangguang Middle School, Nanchang, Jiangxi	2019/2020