Impacts of combined childhood exposures to poor neighborhood quality, peer friendships and family relationships on adult depression——a seven-year longitudinal study



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Background

- Childhood family relationships (CFR), childhood peer friendships (CPF), and childhood neighborhood quality (CNQ) have been demonstrated to be significant factors of adult depression and most of the studies were crosssectional.
- According to the socio-ecological model, these factors represent different socio-ecological systems of a person and may conjunctively influence one's health.



• Little is known about how the combined impacts of these factors predict future adult depression

Method

- Data were drawn from the China Health and Retirement Longitudinal Survey.
- Participants were divided into four groups based on the total number of childhood exposures (group 0-3).
- The generalized linear mixed model was used to test the relationship between combined poor childhood exposures and adult depression.

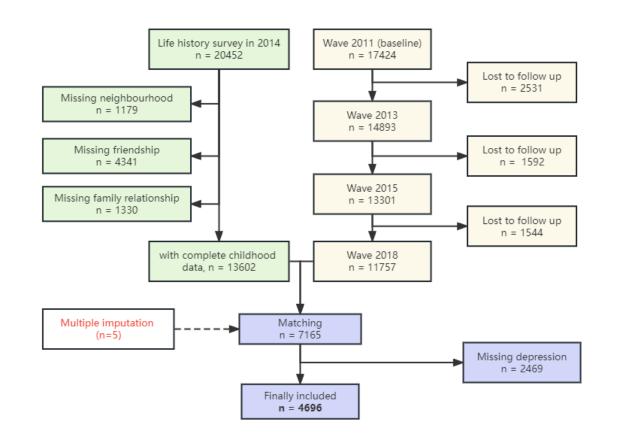


Figure 1. Flowchart of Study Participants Selection

Results

Table 1. Correlation analyses among CNQ, CPF and CFR

	CNQ	CPF	CFR
CNQ	-	0.31***	0.19***
CPF	0.28***	-	0.20***
CFR	0.18***	0.20***	-

The lower triangle was a partial correlation analysis with adjusting for age, gender, household socioeconomic status, type of community; *** p<0.001

Table 2. Relationship between combined childhood exposure and adult depression

	MODEL 1	MODEL 2	MODEL 3
	OR (95%CI)	AOR (95%CI)	AOR (95%CI)
group 0	ref.	ref.	ref.
group 1	1.67 (1.40, 1.99) ***	1.62 (1.37, 1.92) ***	1.50 (1.27, 1.77) ***
group 2	3.22 (2.63, 3.93) ***	2.80 (2.31, 3.40) ***	2.43 (2.01, 2.94) ***
group 3	5.90 (4.45, 7.83) ***	5.26 (4.01, 6.90) ***	4.24 (3.25, 5.54) ***

MODEL 1: Univariable analysis with adjusting random effects of repeated measurement MODEL 2: Adjusted for variables in MODEL 1 + age, gender, smoking, drinking, marital status, education, household socioeconomic status, type of community, the status of chronic diseases

MODEL 3: Adjusted for variables in Model 2 + father's depression history, mother's depression history OR: odds ratio; AOR: adjusted odds ratio; *** p<0.001

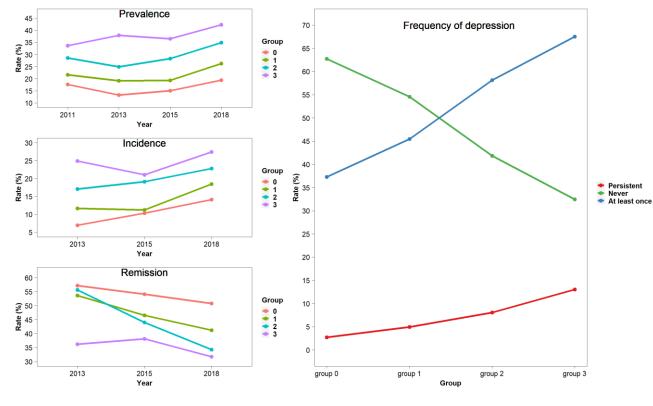


Figure 2. The prevalence and conversion rates of depression among four groups

Discussion

- The prevalence of depression from 2011 to 2018 (19%~27%) was higher than that in 1997 (10.1%) in China.
- It is crucial to develop a healthy and positive childhood environment covering family, peers, and neighborhoods to prevent adult depression, and break the vicious cycle.
- As the childhood histories were collected via selfreported questionnaires, recall bias was inevitable.

Conclusions & Outlook

- Childhood family relationships, friendships and neighborhood quality were positively correlated with each other.
- The number of types of such poor childhood exposures was a significant risk predictor for the likelihood and status change of adult depression.
- Future studies are expected to validate the findings in younger populations, and explore potential mechanisms.