

Background

- **Emerging adulthood**, ages 18-25, is a time period of transitions and instability, especially in the domains of inter- and intrapersonal functioning (Arnett, 2000).
 - **Interpersonal functioning** = quality and quantity of relationships with others
 - **Intrapersonal functioning** = individual's internal cognitive and emotional experiences
- **Adverse childhood experiences (ACEs)** = any event that causes potential harm to a child and includes a) abuse, b) neglect, and c) family stressors (e.g., incarcerated family member; Felitti et al., 1998).
 - 25% of children experience at least one ACE (CDC, 2016).
 - 60% of ACEs survivors report experiencing cumulative ACEs (McLaughlin et al., 2010).
- The impact of individual/cumulative ACEs on inter- and intrapersonal functioning in emerging adults is unclear.
- The current study **aims** to assess the relationship between individual and cumulative ACEs and interpersonal domains (i.e., *relationship status* and *negotiation in intimate relationships*) and intrapersonal domains (i.e., *loneliness* and *self-esteem*).

Methods

Participants:

- Undergraduates completed an on-line survey ($N = 436$)
- **Age:** 18–25; M age: 19.73 ($SD = 1.83$)
- **Gender:** 63.8% female ($n = 278$)
- **Ethnicity:** 20.6% Hispanic ($n = 90$)
- **Race:** 31.4% Asian ($n = 137$)
35.1% Caucasian ($n = 153$)
28.7% Other ($n = 125$)

Measures:

- **Adverse Childhood Experiences:** ACEs Survey (Felitti et al., 1998) (Table 1)
- $M = 1.5$ ACEs; 63% experienced one or more ACEs
- **Interpersonal Domain:** Conflict Tactics Scale-2 (CTS-2; Straus et al., 1996)
 - Relationship status:
 - 51.5% Dating ($n = 223$)
 - 10.1% Other committed relationship ($n = 44$)
 - 38.5% Never in relationship ($n = 168$)
 - Negotiation: Ability to resolve interpersonal conflict with one's romantic partner ($\alpha = .87$), $M = 70.53$ ($SD = 45.92$)
- **Intrapersonal Functioning:** Child Abuse Potential (CAP) Inventory (Milner, 1986; 1994)
 - Loneliness ($\alpha = .85$), $M = 7.09$ ($SD = 4.34$)
 - Ego-strength ($\alpha = .94$), $M = 23.19$ ($SD = 10.85$)

Data Analysis Plan:

- Three ordinary least square regressions, with ACEs predictors and outcomes of negotiation, loneliness, and self-esteem.
- One multinomial regression, with relevant ACEs predictors and continuous nominal outcome of relationship status.
- For all regressions, only predictors that were significant in bivariate analyses were included.

Table 1. Prevalence of Adverse Childhood Experiences

Emotional Abuse	111 (25.5%)
Physical Abuse	45 (10.3%)
Sexual Abuse	55 (12.6%)
Emotional Neglect	60 (13.8%)
Physical Neglect	44 (10.1%)
Domestic Violence	64 (14.7%)
Substance Using Family Member	62 (14.2%)
Mentally Ill Family Member	108 (24.8%)
Family Member in Prison	15 (3.4%)

Table 2. Multivariate Ordinary Least Squares Linear Regressions between Predictors and Outcomes of Loneliness, Self-esteem, and Negotiation

Predictors	Outcomes and Effect Sizes			
	B (SE)	Beta	95% CI	
			Lower	Upper
Loneliness				
Emotional Abuse	.17 (.15)	.09	-.12	.46
Sexual Abuse	.00 (.14)	.00	-.26	.27
Emotional Neglect	.42 (.14) **	.18	.14	.71
Physical Neglect	-.05 (.16)	-.02	-.36	.26
Domestic Violence	-.06 (.14)	-.03	-.34	.22
Substance Using Family Member	.11 (.14)	.05	-.16	.38
Mentally Ill Family Member	.15 (.12)	.08	-.09	.39
Cumulative ACEs	.25 (.25)	.15	-.25	.74
Self-esteem				
Emotional Abuse	-.57 (.21) **	-.20	-.99	-.16
Physical Abuse	.42 (.23)	.10	-.03	.87
Emotional Neglect	-.76 (.21) ***	-.21	-1.16	-.35
Physical Neglect	-.13 (.23)	-.03	-.58	.33
Domestic Violence	-.12 (.21)	-.04	-.53	.29
Substance Using Family Member	-.42 (.20) *	-.12	-.81	-.02
Mentally Ill Family Member	-.26 (.18)	-.09	-.61	.09
Cumulative ACEs	-.07 (.33)	-.03	-.71	.58
Negotiation				
Family member in prison	1.93 (.95) *	.12	.06	3.80

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 3. Multinomial Logistic Regression between Predictors, Covariates, and Relationship Status

Predictors	Outcomes and Effect Sizes			
	B(SE)	Exp (B)	95% CI	
			Lower	Upper
Dating vs Never in a Relationship				
Physical Abuse ^a	-.54 (.47)	.58	.23	1.45
Sexual Abuse ^a	-.76 (.40)	.47	.21	1.03
Substance Using Family Member ^a	.01 (.37)	1.00	.49	2.09
No ACEs vs 4 or More ACEs ^b	.43 (.50)	1.54	.58	4.08
1 ACE vs 4 or More ACEs ^b	.59 (.49)	1.81	.69	4.73
2-3 ACEs vs 4 or More ACEs ^b	.38 (.45)	1.46	.60	3.53
Age	-.16 (.06) **	.85	.76	.96
Ethnicity ^c	.91 (.30) **	2.49	1.39	4.47
Committed Relationship vs Never in a Relationship				
Physical Abuse ^a	-1.49 (.63) *	.23	.07	.78
Sexual Abuse ^a	-1.14 (.55) *	.32	.11	.94
Substance Using Family Member ^a	-.94 (.50)	.39	.15	1.04
No ACEs vs 4 or More ACEs ^b	.90 (.81)	2.45	.50	11.93
1 ACE vs 4 or More ACEs ^b	1.28 (.75)	3.60	.83	15.73
2-3 ACEs vs 4 or More ACEs ^b	.64 (.67)	1.89	.51	7.01
Age	.03 (.09)	1.03	.87	1.23
Ethnicity ^c	.83 (.44)	2.29	.96	5.46

Notes:

^a For individual ACEs, 0 (did not experience that ACEs) was set as the referent

^b For cumulative ACEs categories, 4 or more ACEs was set as the referent

^c For ethnicity, "Hispanic" was set as the referent

* $p < .05$; ** $p < .01$

Results

Interpersonal Domain:

- **Relationship Status:** Those who endorse physical and sexual abuse (vs. those who did not) were more likely to have never been in a relationship (vs. a committed relationship). (Table 3)
- **Negotiation:** Growing up with an incarcerated family member was associated with increased ability to negotiate. (Table 2)

Intrapersonal Domain:

- **Loneliness:** Emotional neglect was associated with increased loneliness. (Table 2)
- **Self-esteem:** Emotional neglect, emotional abuse, and growing up with substance using family member were associated with decreased self-esteem. (Table 2)

Discussion

- ACEs associated with environmental instability (e.g., emotional abuse) are uniquely associated with intrapersonal domains of loneliness and self-esteem.
 - This suggests that schemas of unpredictability that develop in unstable environments (Ross & Hill, 2002) may impact cognitive and emotional functioning in emerging adults.
- ACEs indicative of direct physical harm (e.g., sexual abuse) are associated with not being in a relationship.
 - This suggests that these individuals, in particular (Campbell, 2009), have difficulty initiating intimate relationships, perhaps through attachment mechanisms (Hong et al., 2012).
- Cumulative ACEs were not associated with any outcome, suggesting that for inter and intrapersonal domains, individual ACEs may exert more influence (Babad et al., 2019; Nikulina et al., 2016).

Limitations:

- College students
- Cross-sectional design
- Retrospective reporting of ACEs

References

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