Table A1

SEM Summary Table for Time-domain HRV Showing Standardized and Unstandardized

Regression Weights

HRV variable included in the model and paths				
HRV variable: IBI	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.114	0.106	0.163	0.283
IBI (e)	-6.864	12.498	-0.102	0.583
Cluster B (f)	3.100	2.551	0.179	0.224
IBI				
Age (g)	0.002	0.002	0.142	0.401
Adversity (a)	0.001	0.002	0.062	0.733
Cluster B				
IBI (d)	-0.665	0.430	-0.172	0.122
Adversity (b)	0.015	0.005	0.365	0.004
Indirect path adf	-0.001	0.007	-0.002	0.856
Indirect path ae	-0.004	0.029	-0.006	0.878
Indirect path bf	0.045	0.046	0.065	0.328
HRV variable: SDNN	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.105	0.112	0.151	0.344
SDNN (e)	1.950	73.385	0.005	0.979
Cluster B (f)	3.458	2.460	0.199	0.160
SDNN				
Age (g)	-0.001	0.000	-0.297	0.028
Adversity (a)	-0.000	0.000	-0.051	0.623
Cluster B				
SDNN (d)	-2.365	2.816	-0.105	0.401
Adversity (b)	0.014	0.005	0.354	0.007
Indirect path adf	0.001	0.003	0.001	0.824
Indirect path ae	-0.000	0.014	-0.000	0.989
Indirect path bf	0.049	0.044	0.071	0.263
HRV variable: RMSSD	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.102	0.104	0.147	0.327
RMSSD (e)	-35.203	86.199	-0.057	0.683
Cluster B (f)	3.389	2.503	0.195	0.176
RMSSD				
Age (g)	-0.000	0.000	-0.239	0.183
Adversity (a)	-0.000	0.000	-0.124	0.279
Cluster B				
RMSSD (d)	-1.824	4.599	-0.052	0.692
Adversity (b)	0.014	0.005	0.351	0.007

Indirect path adf	0.001	0.004	0.001	0.824
Indirect path ae	0.005	0.018	0.007	0.778
Indirect path bf	0.048	0.042	0.069	0.254

Note. IBI=Inter-beat Interval, RMSSD= Root Mean Square of the Successive Differences;

SDNN= Standard Deviation of Normal to Normal R-R intervals, Std. Err= Standard Errors;

Std. all=All variables are standardized.

Table A2

SEM Summary Table for Frequency-domain HRV Showing Standardized and Unstandardized

Regression Weights

HRV variable included in the model and paths				
HRV variable: LF	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.087	0.100	0.125	0.385
LF (e)	0.053	0.044	0.177	0.229
Cluster B (f)	3.525	2.472	0.203	0.154
LF				
Age (g)	-0.844	0.379	-0.322	0.026
Adversity (a)	0.255	0.372	0.109	0.493
Cluster B				
LF (d)	-0.000	0.002	-0.023	0.866
Adversity (b)	0.014	0.005	0.360	0.005
Indirect path adf	-0.000	0.004	-0.001	0.933
Indirect path ae	0.013	0.025	0.019	0.589
Indirect path bf	0.051	0.045	0.073	0.260
HRV variable: HF	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.091	0.111	0.131	0.413
HF (e)	-0.053	0.079	-0.098	0.500
Cluster B (f)	3.808	2.661	0.220	0.153
HF				
Age (g)	0.173	0.301	0.121	0.565
Adversity (a)	-0.160	0.157	-0.125	0.309
Cluster B				
HF (d)	0.006	0.006	0.190	0.347
Adversity (b)	0.015	0.005	0.382	0.002
Indirect path adf	-0.004	0.008	-0.005	0.646
Indirect path ae	0.009	0.018	0.012	0.645
Indirect path bf	0.059	0.048	0.084	0.225
HRV variable: LF/HF	Estimate	Std. Err	Std. all	*P*
Aggression				
Adversity (c)	0.102	0.111	0.146	0.358
LF/HF (e)	0.062	0.297	0.034	0.834
Cluster B (f)	3.643	2.780	0.210	0.190
LF/HF				
Age (g)	-0.054	0.059	-0.129	0.360
Adversity (a)	0.008	0.051	0.021	0.874
Cluster B				
LF/HF (d)	-0.032	0.012	-0.295	0.007
Adversity (b)	0.015	0.005	0.366	0.004

Indirect path adf	-0.001	0.008	-0.001	0.905
Indirect path ae	0.001	0.015	0.001	0.973
Indirect path bf	0.054	0.048	0.077	0.259

Note. LF=Low Frequency Power of Heart Rate Variability, HF=High Frequency Power

of Heart Rate Variability; LF/HF=Ratio between Low and High Frequency Components of

Heart Rate Variability; Std. Err= Standard Errors; Std. all=All variables are standardized.

Table A3

Association between Different Forms of Early Childhood Adversity and SDNN Adjusted for

age

	B	*SE*	95% CI		*P*
			LL	UL	
Emotional abuse	.000	.001	-.002	.002	.855
Emotional neglect	.001	.001	-.001	.002	.294
Physical abuse	.001	.001	-.001	.002	.261
Physical neglect	-.004	.001	-.006	-.001	.004
Sexual abuse	-.001	.001	-.002	.001	.343
Age	-.001	.000	-.001	.000	.012

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit; SDNN= Standard

Deviation of Normal to Normal R-R intervals.

Table A4

Association between Different Forms of Early Childhood Adversity and RMSSD Adjusted for

age

	B	*SE*	95% CI		*P*
			LL	UL	
Emotional abuse	.000	.001	-.001	.001	.809
Emotional neglect	.000	.000	-.001	.001	.492
Physical abuse	.000	.000	-.001	.001	.412
Physical neglect	-.002	.001	-.003	.000	.030
Sexual abuse	-.001	.000	-.001	.000	.204
Age	.000	.000	-.001	.000	.115

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit; RMSSD= Root Mean

Square of the Successive Differences.

Description of the Virtual Reality Aggression Prevention Training

The theoretical framework for the Virtual Reality Aggression Prevention Training (VRAPT) has been developed through the six steps of the Social Information Processing theory (SIP; Walther, 2008) that have been converted into six questions: 1) What is going on? 2) What does this mean? 3) What is the goal I'm trying to achieve in this situation? 4) How can I respond to this? 5) What am I going to do? and 6) Enacting responses: response or behavior. Each step is practiced separately during the VRAPT in the interactive three-dimensional virtual environment. During the session, participants can practice, for example, recognizing facial emotions of others (i.e., What is going on?), or assessing the aggression level of the virtual character's behaviors (i.e., What does this mean?). Different interactive social scenarios are designed to help participants learn to cope with their aggression adequately. Some examples of social scenarios are the following: The participant is waiting in a row in the virtual supermarket to pay for the purchased products. When it is almost his turn, an avatar is trying to push forward and the participant is asked to respond to this inappropriate behavior of the avatar (Figure A1). In another scenario, the participant must order a drink at the coffee shop, unfortunately, the bar has just been closed and the avatar makes it aggressively clear that the bar is closed. The participant must respond assertively while being provoked and must insist on getting a drink (Figure A2). During the VRAPT, participants are wearing headphones and a head-mounted display while interacting with a virtual avatar. The trainer controls the avatar by taking on the role of it by using a microphone with voice distortion for speech, and by manually controlling the avatar's emotional facial expressions and bodily movements. Lastly, the trainer also controls the virtual environment and can immediately change and/or stop it if necessary.
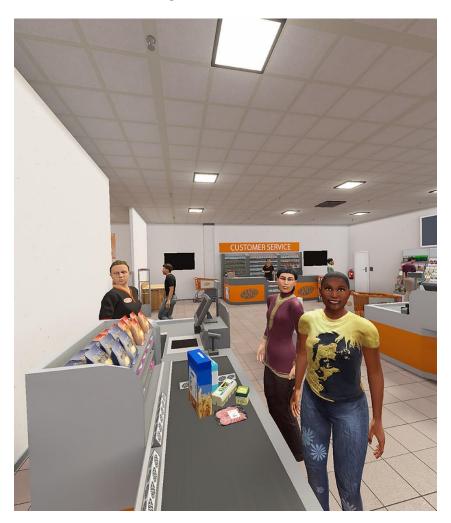
Figure A1

Virtual Environment: Supermarket

Figure A2

Virtual Environment: Coffee Shop