

RESEARCH ARTICLE

Relation between childhood experiences and adults' self-esteem: A sample from Baghdad

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ABSTRACT

Background: Adverse childhood experiences are associated with significant functional impairments and loss of life in adolescence and adulthood. Literature documents the conversion of traumatic emotional experiences in childhood into psychological disorders later in life. The family is one of the most critical risks and resilient factors for mental health in adolescence and emerging adulthood.

Objective: To estimate the effect of childhood experiences on self-esteem during adulthood in a sample from Baghdad city.

Methods: This cross-sectional study was conducted in Baghdad city during the period from January 2013 through to January 2014. Multistage sampling techniques were used to choose 13 primary healthcare centers and eight colleges from three universities in Baghdad. Childhood experiences were measured by applying a modified standardized Adverse Childhood Experiences International Questionnaire (ACE-IQ) form.

Results: A total of 1040 subjects were surveyed and 1000 responded giving a response rate of 96.2%. The results revealed that 82.7% of the participants were confident within themselves, 14.9% (149) reported to feel a failure, while 28.3% of subjects expressed feeling useless at times. The score for family bonding is expected to significantly increase the score for self-esteem by a mean of 21.48. University, diploma and higher education are expected to significantly decrease the self-esteem score by a mean of -6.31 compared to those with less than secondary school education. Parents education show statistically insignificant association with the mean score for self-esteem.

Conclusion: The findings of this study give an insight into the essential role of childhood experiences in

building self-esteem and adaptation later in their life. National health programs are suggested for intervention targeting early adverse childhood experiences and their consequences.

Keywords: childhood experiences, self-esteem, Baghdad

INTRODUCTION

Adverse childhood experiences (ACEs) refer to some of the most intense and frequently occurring sources of stress that children may suffer early on in life. Such experiences include multiple types of abuse; neglect; violence between parents or caregivers; community and collective violence.¹ ACEs are associated with significant functional impairment and loss of life in adolescence and adulthood.²

Self-esteem represents the affective, or evaluative, component of self-concept; it signifies how people feel about themselves and is considered an important outcome of psychological resilience.^{3,4}

Several articles have documented an association between adolescents' exposure to chronic and acute episodes of violence and a range of distress symptoms, including internalizing (i.e., depression, anxiety, low self-esteem) and externalizing behavioral problems (conduct problems, socialized aggression and tension problems) and impaired social, emotional, and cognitive functioning.⁵ Consequences of child maltreatment include impaired lifelong physical and mental health, and the social and occupational outcomes can ultimately slow a country's economic and social development.⁶ Progress in preventing and recovering from a nation's worst health and social problems is likely to benefit from understanding that many of these problems arise as a consequence of adverse childhood experiences.⁷

The family is one of the most critical risks and resilience variables for substance abuse in adolescence and emerging adulthood.⁸ The most consistently reported variables that facilitate positive adaptation under the conditions of risk are connections with competent caring adults, good intellectual functioning, self-regulation skills, and positive self-image.⁹

For more than three decades, Iraq has been suffering from wars, sanctions and urban violence.^{10,11,12}

Pre-invasion mortality rate prior to 2003 was 5.5 per 1000 per year compared to 13.3 per 1000 in the 40 months post-invasion.¹³ The Iraqi people have

witnessed to date the painful and terrible consequences of car bombings, mass violence, and military operations.¹⁴ Iraqi children and youth have been so greatly affected by these dire conditions, facing disease, starvation, psychological trauma and death.^{15,16}

The objective of the study is to estimate the impact of childhood experiences on self-esteem in adulthood in a sample from Baghdad city. Considering the disastrous and devastating situation that the Iraqi people have endured during the last three decades, there is a real need to study the outcome of these experiences on the personality of Iraqi individuals that might be reflected on their wellbeing.

METHODS

This cross-sectional study that was designed as a retrospective cohort and was conducted in Baghdad city; the center of Baghdad, the capital of Iraq. Data collection was performed during the period from January 2013 through to January 2014. The target population were male and females between a broad age group of 18-59 years which widened the spectrum and increased the number of end points. Individuals aged 60 years and above were not included in the study to avoid interference of other factors that may confound the outcome and make the inference of the study questionable. The source of data collection was from:

Primary health care centers (PHCCs): a multistage random sampling technique was used to select these. Baghdad is divided into 16 health sectors, out of these, five sectors were chosen by a simple random technique. The total number of PHCCs in these five sectors was 60 with a mean number of 12 PHCCs for each sector; three PHCCs were chosen from each large sector (those containing more than 12 PHCCs) and two from each small sector (with less than 12 PHCCs) through simple random sampling for selection of PHCCs proportionate to the density of its distribution. So, 13 PHCCs from the two main districts of Baghdad city were collected that represent central and peripheral sectors. Each PHCC was visited for two to three weeks to collect data from daily attendants, mostly mothers who brought their children for vaccinations, through a systematic random sampling technique by including every fourth patient seen.

Universities: A multistage random sampling technique was adopted by selecting three out of the

five universities that are present in Baghdad. University of Technology, Iraq, Al-Nahrain University and the University of Baghdad were selected. Individual colleges were then selected from each university by a simple random sampling technique, and one grade was also randomly selected from each college. All students of that grade who were available at the time of data collection were included in the sample.

Instruments: The questionnaire consisted of the following items:

- **Socio-demographic information:** Age (18-59 years), current education level, history of smoking habits and alcohol drinking whether previous or current.
- **Adverse childhood experiences** (when the age was 15 years or less) including:
 - Household dysfunction and abuse.
 - Exposure to community and collective violence.

Adverse childhood experiences were measured by applying a modified standardized Adverse Childhood Experiences International Questionnaire (ACE-IQ) form that was developed by the WHO¹ and includes categories of household dysfunction and abuse including: psychological abuse; physical abuse; household dysfunction including violence against a mother or other household members; living with household members who are substance abusers, mentally ill or suicidal; imprisonment of a household member; and parental loss during childhood. Witnessing community violence includes seeing or hearing someone being beaten, stabbed or shot in real life. Exposure to collective violence includes wars, terrorism, political or ethnic conflicts, repression, disappearance and torture; this was measured via questioning subjects if they had been forced to relocate, if a family member or a friend was kidnapped, killed or beaten up by soldiers, police, militia, or gangs.

Positive childhood experiences were indicated by family bonding and parental monitoring (when the age was 15 years and less):

- Family bonding was measured by five modified items derived from an instrument^{4,17} and from questions about relationships with parents that were presented in the ACE-IQ.¹ Subjects indicated how much they would like to be the kind of person their parents are/were, how much their parents

made them feel trusted, how much they depended on their parents for advice and guidance and how much the parents understood their problems and worries. Responses to questions on family bonding ranged from "strongly disagree" to "strongly agree" on a four point Likert scale.

- Three items for parental monitoring were put as indicators: time spent talking about school and other activities of the day, time spent playing with the subjects and knowing (who) their friends are. Possible responses for parental monitoring items ranged from "almost never" to "often".⁴

Self-esteem assessment: was measured by the self-esteem scale of Rosenberg.⁴ The questions included: at present time; how much they are satisfied about themselves, how much they feel that they have a number of good qualities, how much they feel useless at times, how much they feel that they need respect for themselves. Responses ranged from "strongly disagree" to "strongly agree."

The variables were translated, defined and carefully explained to the respondents to avoid any misunderstanding. In addition, a pilot study was done and thereafter built upon, with some modifications to certain questions, wording and translation considering the item of family bonding and items of self-esteem assessment.

The questionnaire was completed through a direct interview with the respondents after explaining to them the aim of the study.

Due to the sensitive nature of the Iraqi culture, it was decided to avoid any questions that refer to unaccepted norms or trigger social stigma such as sexual abuse during childhood. Preceding the interview, the researcher explained to the respondents the aim and concept of the research, assuring them that all the information would be kept strictly confidential and would not be used for anything other than research purposes. The questionnaire was anonymous, and the subjects were given the choice to participate or not. Verbal consent was taken and the interview was conducted in a closed room to ensure privacy.

DATA ANALYSIS

Data entry followed by descriptive and analytic statistics were performed using the IBM Statistical Package for the Social Sciences (SPSS Version 21). The score for family bonding and parental monitoring

was calculated as a single score, considered as a single item of positive childhood experiences.

Standardization scores of household dysfunction-abuse and community-collective violence were calculated for each participant according to the following equation: $\text{standardization score} (/100) = \text{sum} (Q1 \text{ to } Qn) \times 100 / (\text{count valid} \times \text{upper limit of scoring of the questions in the scale})$.

- Sum (Q1 to Q n) = summation of questions answered for that scale.
- Count valid = number of answered questions of that scale.

The aim behind standardizing the scores was to bypass the effect of missed questions, and to provide a universal range for the analysis (all scores were measured from zero to 100).

Quartiles for household dysfunction-abuse, community-collective violence and family bonding scores were calculated (four quartiles for each score). Quartiles were used as they give a better picture of the spread of data when interpreting the results and allow easy comparison between graded quartiles. Cronbach's Alpha reliability of family bonding scale was: 0.86 (strong). Cronbach's Alpha reliability of self-esteem scale was: 0.82 (strong).

Multiple regression model was used to adjust for effects of demographic factors on the association between the cumulative number of categories of childhood exposures and risk factors for self-esteem in adult life.

RESULTS

A total of 1040 subjects were surveyed and 1000 responded giving a response rate of 96.2%.

Respondents age ranged from 18 to 59 years with a mean of 32.08 ± 11.169 , females constituted a higher proportion of the study sample (58.3%). Only 18.5% of the participants reported smoking, and 4.2% reported alcohol use (Table 1).

Exposure to household dysfunction and abuse:

Table 2 shows that death of a father (when the subject was less than 15 years) was seen in 104 (10.4%) of the participants, while death of a mother (when the subject was less than 15 years) was seen in 21 (2.1%) subjects. Parents separation was recorded in 30 (3%) of the subjects. Seeing or hearing a parent or household member in the home being yelled, screamed or sworn at, insulted or humiliated was reported in 469 (46.9%). Seeing or hearing a parent

Table 1. Socio-demographic characteristics of the study sample.

N = 1000	N	%
Gender		
Female	583	58.3
Male	417	41.7
Total	1000	100.0
Age group (years)		
< 30	498	49.9
30-39	227	22.7
40-49	177	17.7
50-59	96	9.6
Total	998	100.0
Highest level of education completed		
Primary school	135	13.5
Intermediate	127	12.7
Secondary	122	12.2
University/Diploma	603	60.4
Post graduate	12	1.2
Total	999	100.0
Cigarette smoking		
Non smoker	814	81.5
Ever smoked	185	18.5
Total	999	100.0
Alcohol drinking habit		
Never drank alcohol	949	95.8
Ever drank alcohol	42	4.2
Total	991	100.0

or household member at home being slapped, kicked, punched or beaten up was seen in 331 (33.1%).

A parent or household member in the home being hit or cut with an object, such as a stick (or cane), bottle, club, knife or whip was recorded in 175 (17.5%).

A parent, guardian or other household member yelled, screamed or swore at, insulted or humiliated 387 subjects (38.7%). It was reported that a parent or other household member spanked, slapped, kicked or punched 335 (33.5%) subjects. All items in Table 2 represent a response of sometimes or frequently.

Exposure to community violence: As shown in Table 3, the most common trauma event of community violence reported by participants was seeing or hearing someone being beaten up in real life (48.3%), or being threatened with a knife or gun in real life (18.1%). A family member or friend having been kidnapped or beaten up by soldiers, police, militia, or gangs were reported in 14.8% of subjects. A family member or friend killed by soldiers, police, militia, or gangs was seen in 17.2%. All items in Table 3 represent a response of sometimes or frequently.

Table 2. Frequency distribution of household dysfunction and abuse items.

N = 1000	N	%
Household dysfunction and abuse items (age below 15 y):		
Father died when the subject was < 15 years old	104	10.4
Mother died when the subject was < 15 years old	21	2.1
Parents separated when the subject was < 15 years of age	30	3.0
Live with a household member who was a problem drinker, alcoholic, or misused street or prescription drugs	133	13.3
Lived with a household member who was depressed, mentally ill or suicidal	83	8.3
Lived with a household member who was ever sent to jail or prison	105	10.5
Saw or heard a parent or household member at home being yelled at, screamed at, sworn at, insulted or humiliated	469	46.9
Saw or heard a parent or household member at home being slapped, kicked, punched or beaten up	331	33.1
Saw or heard a parent or household member at home being hit or cut with an object (stick, bottle, club, knife, whip ... etc.)	175	17.5
If a parent, guardian or other household member had threatened to, or actually had abandoned or thrown you out of the house	137	13.7
If a parent, guardian or other household member yelled, screamed, insulted or humiliated you	387	38.7
If a parent, guardian or other household member spanked, slapped, kicked, punched or beaten you	335	33.5
If a parent, guardian or other household member hit or cut you with an object, such as stick, bottle, club, knife, whip ... etc	162	16.2
If bad treatment resulted in injury	33	3.3

Family bonding: Table 4 shows that 74.8% of subjects would like to be the kind of people their parents are/were, 83.4% felt their parents made them feel trusted, while 77.5% of participants have parents who understand their problems and needs and 69.2% have parents that spend time talking with them about their daily activities and played with them as a child and during adolescence. All items in Table 4 represent a response of agree and strongly agree.

Self-esteem as an outcome of resilience: Table 5 shows the frequencies of ten items that measure

self-esteem among the subjects, 82.7% of the participants were satisfied with themselves, 14.9% were inclined to feel a failure, while 28.3% felt useless at times. Frequency distribution of self-esteem items in Table 5 represents agree and strongly agree responses.

Association between self-esteem and childhood experience: Table 6 demonstrates that being in the fourth or highest quartile for family bonding is expected to significantly increase the score for self-esteem by a mean of 21.48 compared to subjects

Table 3. Frequency distribution of exposure to community and collective violence items.

N = 1000	N	%
Community and collective violence (age below 15 years)		
Exposed to bullying?	176	17.6
Saw or heard someone being beaten up in real life	483	48.3
Saw or heard someone being threatened with a knife or gun in real life	181	18.1
Forced to relocate	107	10.7
Beaten up by soldiers, police, militia, or gangs	27	2.7
A family member or friend kidnapped or beaten up by soldiers, police, militia, or gangs	148	14.8
A family member or friend killed by soldiers, police, militia, or gangs	172	17.2

Table 4. Frequency distribution of the items of bonding to family.

N = 1000	N	%
Bonding to family (age below 15 years)		
Like to be the kind of person parents are/were	748	74.8
Parents made you feel trusted	834	83.4
Parents understand your problems & needs	775	77.5
Parents are depended upon for advice and guidance	835	83.5
Parents encouraged me for going to school	917	91.7
Parents spent time talking with you about school	805	80.5
Parents spent time talking with the participants about activities of the day and spent time for playing and travels	692	69.2
Parents knew the friends of their sons/daughters (participants)	906	90.6

within the lowest or first quartile after adjusting other explanatory variables. Being in the third quartile for family bonding is expected to significantly increase the self-esteem score by a mean of 13.19 compared to subjects within the first quartile. Being in the second quartile is expected to significantly increase the self-esteem score by a mean of 6.59 compared to subjects within the first quartile of family bonding after adjusting other explanatory variables.

Being in the fourth quartile for household dysfunction and abuse is expected to significantly decrease the self-esteem score by a mean of -3.042 compared to those within the first quartile for household dysfunction and abuse after adjusting other explanatory variables included in the multiple linear regression models.

University, diploma and higher education are expected to significantly decrease the self-esteem score by a mean of -6.31 compared to those with less than secondary school education.

Parents education show statistically insignificant association with mean score of self-esteem.

R^2 for the model was 0.37 which is considered a large effect size.

DISCUSSION

The aim of this study was to focus on the relationship of ACEs represented mainly by violence within the community and from individuals rather than the relation and interaction between ethnic and cultural groups.

The general unfavorable security condition in Iraq prohibited doing a house-to-house survey, so we chose to collect the sample from PHCCs that represents the lay population of different age groups and university students (the young educated population), as this is an accessible population, and at the same time it is considered representative of a large strata of Baghdad's population.

Study sample: females consisted a higher proportion of the sample as they were more commonly seen in

Table 5. Frequency distribution of items of self-esteem.

N = 1000	N	%
Self esteem		
On the whole, I am satisfied with myself	827	82.7
At times, I think I am not good at all	293	29.3
I feel that I have a number of good qualities	943	94.3
I am able to do things as well as most other people	857	85.7
I feel I do not have much to be proud of	318	31.8
I certainly feel useless at times	283	28.3
I feel that I'm a person of worth, at least on an equal plane with others	923	92.3
I wish I could have more respect for myself	215	21.5
All in all, I am inclined to feel that I am a failure	149	14.9
I take a positive attitude toward myself	895	89.5

Table 6. Multiple linear regression model with score of self-esteem (/100) as dependent variable and selected explanatory (independent) variables.

	Partial regression coefficient	P	Standardised coefficient
(Constant)	64.889	<0.001	
Household dysfunction and abuse score			
Fourth quartile compared to first (lowest) quartile	-3.042	0.047	-0.076
Third quartile compared to first (lowest) quartile	-2.249	0.07[NS]	-0.064
Second quartile compared to first (lowest) quartile	-0.430	0.8[NS]	-0.008
Community violence score			
Fourth quartile compared to first (lowest) quartile	-5.953	<0.001	-0.135
Third quartile compared to first (lowest) quartile	0.062	0.97[NS]	0.001
Second quartile compared to first (lowest) quartile	-0.862	0.48[NS]	-0.023
Bonding to family score			
Fourth quartile compared to first (lowest) quartile	21.484	<0.001	0.524
Third quartile compared to first (lowest) quartile	13.193	<0.001	0.337
Second quartile compared to first (lowest) quartile	6.594	<0.001	0.171
Male gender compared to females	2.580	0.011	0.075
Age of the participants	0.124	0.013	0.081
Home-owned compared to rented	-0.536	0.66[NS]	-0.013
Educational level of study subject			
University/higher education compared to less than secondary school level	-6.310	<0.001	-0.180
Secondary school compared to less than secondary school level	-5.146	0.002	-0.098
Educational level of father			
University/higher education compared to less than secondary school level	2.110	0.15[NS]	0.058
Secondary school compared to less than secondary school level	2.346	0.07[NS]	0.062
Educational level of mother			
University/higher education compared to less than secondary school level	-1.182	0.46[NS]	-0.027
Secondary school compared to less than secondary school level	0.250	0.85[NS]	0.006
How many of your childhood teachers did you like	0.973	0.19[NS]	0.037

P (Model) < 0.001, R² = 0.37

the PHCCs. The same thing was seen for college students, this could be attributed to the general condition of the country which has led to some demographical changes as violence has been a leading cause of death in men between the ages of 15 and 59 years during the period following 2003 invasion,¹⁸ in addition to the migration and displacement of males especially from Baghdad¹⁹ for many reasons particularly the security instability.

ADVERSE CHILDHOOD EXPERIENCES (ACEs)

Household dysfunction and abuse: The experiences ranged from unpleasant acts of conflict such as being yelled at or spanked, to being insulted, threatened, and neglected physically or emotionally as reported in other studies.^{20,21}

The results revealed that 10% of the participants lost their fathers when they were less than 15 years old while 2% lost their mothers below that age. This finding might be attributed to the exposure of the Iraqi population to wars and widespread violence for a long period of time,^{22,23} and that the majority of deaths occurred in men.¹⁸ The prevalence of emotional abuse (38.7%), physical abuse (33.5%) and exposure of a mother or a household member to violence through verbal (46.9%) or physical punishment (33.1%) is higher than what was reported in an ACE study of the USA population (10.6%, 28.3% and 12.7%) respectively,²⁴ and lower than that reported in Albania,²⁵ Peru and in Bangladesh.²⁶ These differences might be attributed to several factors such as differences in culture, education level, type of personality, economic status, presence or absence of human facilities in addition to differences in the research methodology.

Community violence exposure: The most common trauma event of community violence exposure reported by participants was seeing or hearing someone being beaten up in real life, indicating that about half of the participants lived their childhood in a violent environment.

Association between childhood experiences and self-esteem: In multiple linear regression, the model explained 37% of self-esteem variance among the participants. The finding is considered as a large effect size. The model demonstrated that family bonding is the most important predictor of building self-esteem among the participants. There was a positive graded

relationship between the score for family bonding and the self-esteem score. This finding is consistent with what is reported in the literature as family bonding is one of the important predictors of resilience, and self-esteem is considered an outcome of resilience.³ The term "bonding" expresses the close and emotional relationship between a child and their parents that provides a safe and secure basis for the child to explore and control the environment, and it shapes a child's understanding and participation in his/her future relationships. Studies have shown a strong relationship between parental bonding style and self-esteem.²⁷

The household dysfunction-abuse and community-collective violence exposure were found to have an inverse relationship with the subjects self-esteem indicating that exposure to high levels of violence during childhood erodes the positive sense about the self and world. Many studies have shown that children exposed to violence are at risk of various negative outcomes from childhood to adulthood.^{28,29} When there is inter-parental conflict, the children and adolescents are found to show fear, helplessness, low level of self-esteem, depression and poor social behaviors.^{30,31} Moreover, being exposed to violence may impair a child's capacity for partnering later in life, continuing the cycle of violence into the next generation.³²

The third and second quartiles of household dysfunction-abuse and community violence exposure have an insignificant statistical association with the score for self-esteem which reveals that building self-esteem is affected by high levels of violence exposure however, participants could deal properly with low levels of violence as a process of resilience.

LIMITATIONS OF THE STUDY

The current condition of security instability in Iraq has limited the movement of the researchers regarding the process of data collection.

The data of adverse childhood experiences are based on self-report and recall for a period that may extend to several years, so recall bias cannot be excluded leading to either over or under reporting by interviewees.

Due to the sensitive nature of the Iraqi culture, the study included questions that may have been considered embarrassing or may have stimulated some

sad memories, and the subjects may not have been able to disclose them accurately.

CONCLUSION

Family bonding during childhood seems to play an important role that is associated with building self-esteem during adulthood, while exposure to household

dysfunction-abuse during childhood has a negative association with self-esteem. These findings shed further light on the essential role of childhood experiences in building self-esteem and the adaptation process of individuals later on in life. A national health program is suggested for targeting early ACEs to help prevent or at least dilute their consequences.

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