

A Study of the Correlation Between Childhood Adversity and Increase in Specificity of Murder in Male Versus Female Serial Killers

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| Abstract |

Psychopathy is a psychological disorder that is diagnosable from a young age. It is often described as having a lack of empathy and is generally associated with serial killers or cult leaders. Psychopathy is consistently found to be the result of tenuous childhood relationships. This study hopes to find the correlation between the specificity of serial crimes, associated with increase in psychopathy, and childhood adversity, also associated with increase in psychopathy through the analysis of 100 past serial murders and the childhood experiences of each of the 100 serial killers.

| Introduction |

Serial Killers & Psychopathy

- Serial killers are defined as people who commit the premeditated, intentional killing of three or more victims, with a cooling-off period between killings of at least one week [1, 2, 3].
- A consistent trait between serial killers is the presence of **psychopathy**, defined as a mental disorder that cuts off certain emotional responses in the individual.

Environmental & Parental Influence on Psychopathic Tendencies

- Studies suggest that environment and parenting are the leading factors in the development of psychopathy in adolescents [4,5].
- It's found that as a child's trauma increases, their likelihood of retaining psychopathic tendencies also increases [5].
- Childhood traumatization is expected to have a significant impact on the development of antisocial and aggressive behavior in adulthood.
- A 2003 study examined the relationship between early emotional, physical or sexual trauma and neglect and psychopathy in incarcerated delinquent female and male juveniles. Results indicated that an association exists between early physical, but also emotional traumatic experience and psychopathy in detained boys [1, 2, 3, 6].

Specificity

- Specificity:** The consistency of a serial killer within a set of murders or a serial killing. Determined through the consistency in victimology, modus operandi and geography.
- Victimology:** a set of traits or characteristics that contributes to an individual's victimizations.
 - Examples: hair color, profession and sex.
- Modus operandi:** the pattern of behaviors someone follows to achieve a particular outcome repeatedly.
 - How victims are killed and any rituals or practices involved
- Geography:** where the murders were committed and where the victims were disposed of after the fact.

Adverse Childhood Experiences

- ACE:** Adverse Childhood Experiences aka childhood trauma
 - Occurs between ages 0-18
 - Experiences or witnessing neglect, physical, verbal, and emotional abuse

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| Hypothesis |

Hypothesis A: Childhood adversity contributes to an increase in specificity in a serial crime.

Hypothesis B: If childhood adversity is a contributor to specificity, the rate at which specificity increases in male serial killers is greater than the rate of specificity growth in female serial killers.

| Methodology |

Participants

Serial killers that had been active in the United States alone were selected to control for differences in political climate, culture and upbringing standards and practices.

- 50 male serial killers with 5+ victims
- 50 female serial killers with 3+ victims

Measure for Specificity

Total victims will be determined using:

(victims + escaped victims + planned victims)

to act as the divisor for the Specificity of Serial Murder Scale (SSM Scale). The SSM Scale will be used to determine the specificity of any serial murders that will be looked at.

Categories to determine specificity:

- Victimology:** age of victims, race of victims, hair color of victims, sex of victims, sexual orientation of victims
- M.O.:** cause of death, signature of killer, disposal method of victims, ante-mortem rituals, post-mortem rituals
- Geography:** kill sight of victims and disposal sight of victims

All scores are added together to determine a final SSM score from 0-60.

Measure for Childhood Adversity

Childhood Adversity will be measured using the ACE Scale. The ACE Scale asks a series of yes or no questions. For every "yes" a person answers they gain a point towards their ACE Score, the higher the score the more adversity or trauma they faced as a child. A total of 17 points can be gained on a generally administered ACE Survey. To answer the ACE Survey, the researcher will be completing research of the individual serial killers through online resources. No interviews will be conducted.

| Discussion |

Data Clusters

- Data found between 0-2 of the ACE scale (**figure 7**) is most likely due to lack of data or testimony regarding the childhood experiences of many serial killers.
 - The most accurate way to acquire ACE scores is through the direct questioning of the test subjects.
- The large amount of data between 30-50 on the SSM scale (**figure 7**) is most likely due to the fact that to be classified as a serial killer, some amount of behavior must be repeated and therefore each crime already involves some degree of specificity.

Significant Outliers

- Female data:** For SSM scores, outliers were found twice (**figure 2**)
- Female data:** For ACE the female data set had one outlier (**figure 2**)
 - Most likely due to the small sample size of 20, whereas the male sample size was double that, at 40 subjects.

Frequency of ACE's

- ACE data (**figure 3**), is consistent with previous findings.
 - Many psychopaths report (verbally, physically, emotionally, or sexually) abusive parents or guardians.
 - It has been found that while not all serial killers have separated parents or have lost a parent, it is highly probable that any given serial killer will have separated parents, a single parent or no parents [4].

Frequency of SSM Variables

- Accuracy of the findings from the SSM Scale, in reference to the sexual orientation of the victims (**figure 5**), are incredibly dubious, due to the fact that the sexual orientation of the victims was scored through speculative inferences.
- The question referencing sexual orientation was added to account for hate crimes.
 - If sexual orientation was not explicitly mentioned within the case, or referenced as motive, the serial killer received a 100% specificity score in said category.
 - Due to the fact that every test subject received a 5, it did not skew the data.
- When considering the data about post-mortem rituals (**figure 6**), there is a possibility that many serial killers were underscored. It is difficult to gauge the veracity of post-mortem rituals as reported in forensic files, for this reason.

| Conclusion |

Hypothesis A: *Childhood adversity contributes to an increase in specificity in a serial crime*, was found to have no significant correlation. Both Test A & B yielded p-values of 0.60, concluding that there is **no significant correlation** between childhood adversity and specificity in serial murders.

Due to the fact that hypothesis A was refuted, there are no grounds to investigate hypothesis B, which investigated differences between the sex of serial killers, as it was reliant on a significant correlation between ACE and SSM scores, which was not found.

| Results |

Figure 1: Male Data: Upper and Lower End Outliers

Male Data	Lower Outlier	Score of Outlier	Upper Outlier	Score of Outlier
SSM	19.75	X	60.75	X
ACE	-6.75	X	11.25	X

Figure 2: Female Data: Upper and Lower End Outliers

Female Data	Lower Outlier	Score of Outlier	Upper Outlier	Score of Outlier
SSM	25.25	25	51.25	X
ACE	-2.25	X	3.75	8, 9

Figure 3: Most Frequent ACE Q's (Measured by Number of Yes')

Q	Total	F T	M T	F	M
1a	22%	3%	18.3%	10%	27.5%
1b	20%	3%	16.6%	10%	25%
2a	20%	3%	16.6%	10%	25%
6	43%	10%	33.3%	30%	50%

Figure 4: Least Frequent ACE Q's (Measured by Number of Yes')

Q	Total	F T	M T	F	M
3a	6.6%	1.6%	5%	5%	7.5%
3b	6.6%	1.6%	5%	5%	7.5%
7c	5%	0%	5%	0%	7.5%

Figure 5: Most Frequent SSM Variables (Measured by Number of 5's)

Q	Total	F T	M T	F	M
S.O.	100%	33.3%	66.6%	100%	100%

Figure 6: Least Frequent SSM Variables (Measured by Number of 0's)

Q	Total	F T	M T	F	M
P.M.	91.6%	33.3%	58.3%	100%	87.5%

Figure 7: Complete Male and Female SSM and ACE Scores

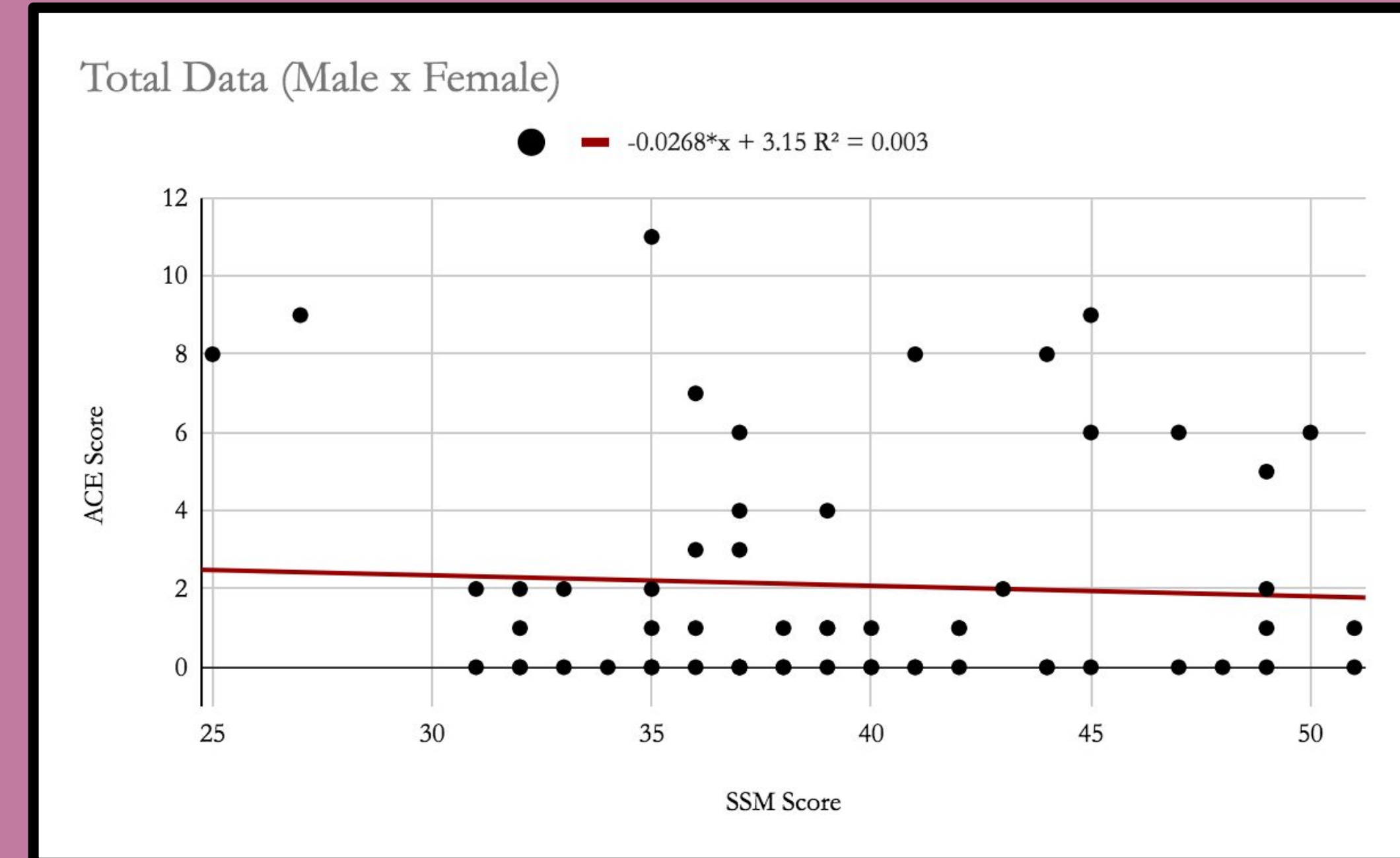


Figure 8: Male ACE and SSM Scores

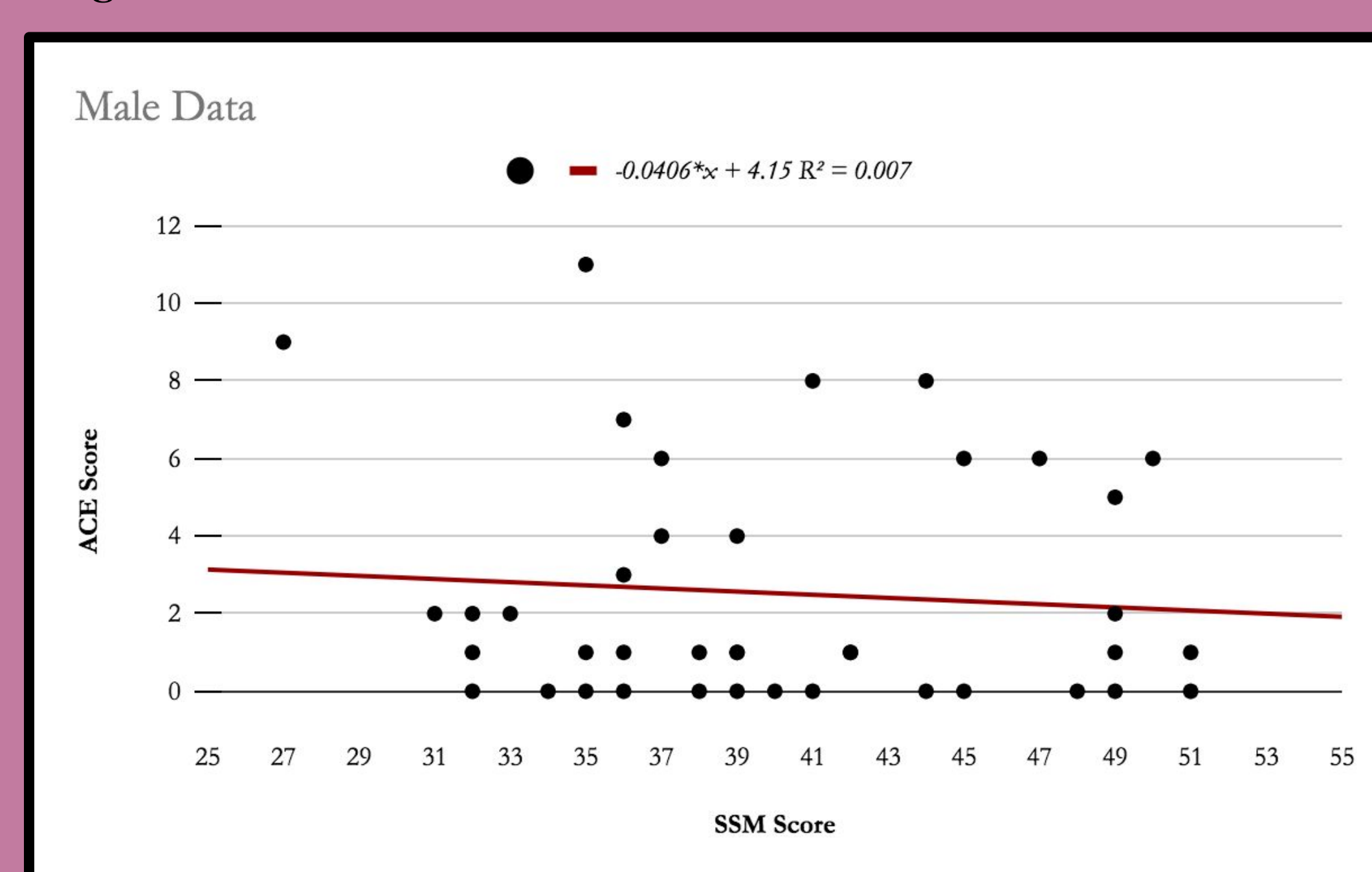
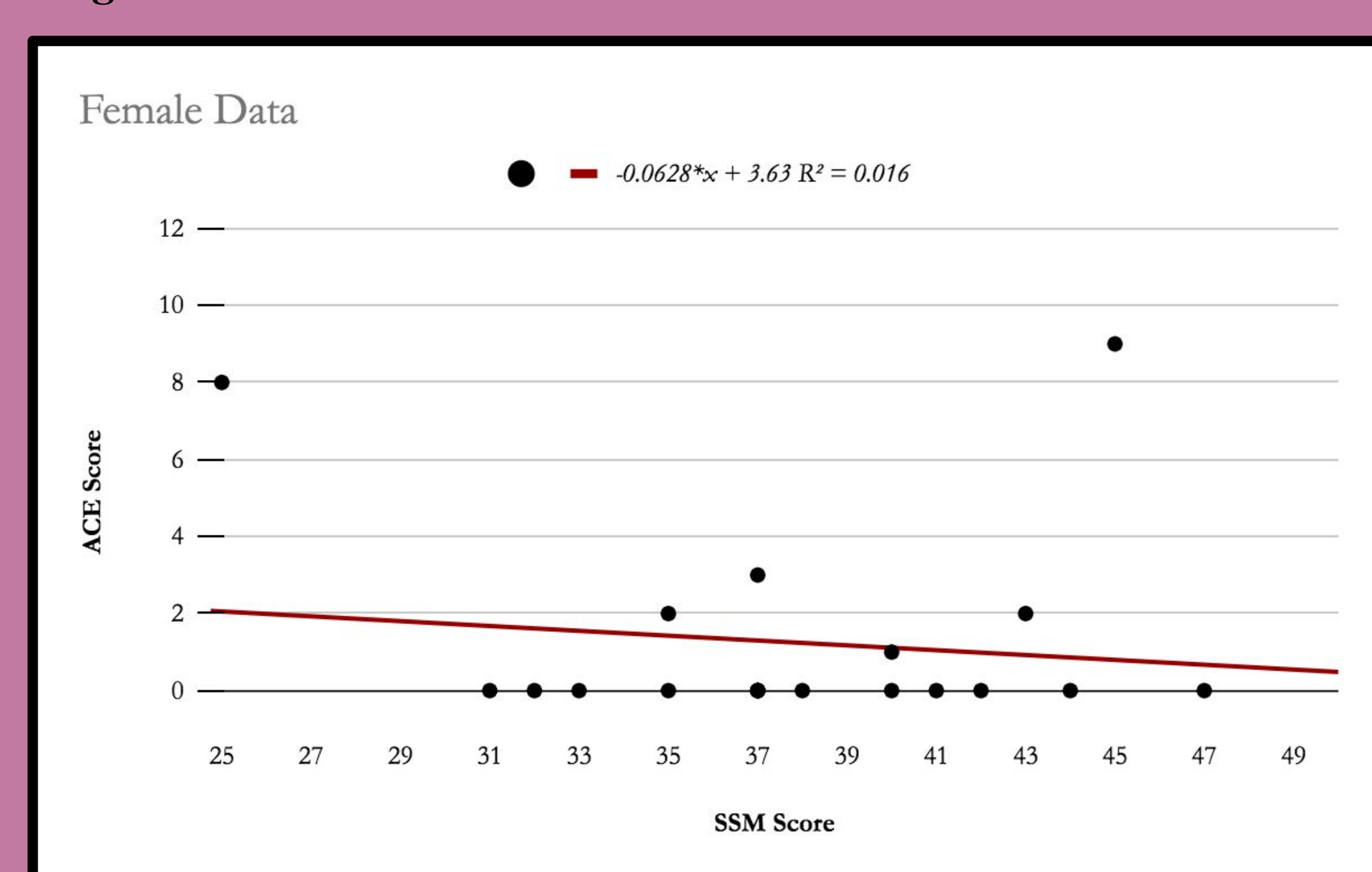


Figure 9: Female ACE and SSM Scores



| Future Work |

Though this study yielded no significant correlation between ACE and SSM scores, there is reason to believe that a re-trial conducted with interviews rather than data collection would yield different results.

There is also the possibility to determine correlation between SSM score and specific types of childhood adversity, i.e. SSM score will increase as years spent with a physically abusive parent increases.

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