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## Aggression and Violent Behavior



## Characteristics of survivors of juvenile sex trafficking: Implications for treatment and intervention initiatives☆

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## ABSTRACT

The Behavioral Analysis Unit (BAU) III of the FBI conducted a study that expands upon a typology of offenders engaging in the sex trafficking of juveniles (STJ) (Hargreaves-Cormany, Patterson and Muirhead, 2016) by developing a STJ Survivor Spectrum of Characteristics. All 179 STJ survivors were included in the latent class analyses (LCAs). Further, a binary logistic regression (BLR) analysis was conducted to examine potential for increase in substance use. Data utilized for the study was derived from protocols developed to obtain demographic information on the offenders and survivors and various aspects of the nature of the criminal act(s) perpetrated by the offender. The second author's expertise and practical knowledge from the field regarding STJ offenders and survivors as well as their interviews were utilized to substantiate the empirical findings. The STJ survivors' age, known increases in substance use, motivation to cooperate/testify and family structure were used as indicators within the LCAs. Three latent classes emerged comprised of different STJ survivor age groups. Results suggested that differences between classes are likely attributed to developmental considerations/maturation. The BLR suggested that age of the STJ survivor was predictive of increase in alcohol use. Qualitative analysis of interviews provided in depth data and a lens into the perspectives of STJ survivors. Results enhance understanding of STJ survivors and inform treatment/intervention initiatives which may result in prevention/reduction of harm to juveniles.

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### 1. Introduction

A wide range of literature was reviewed in order to develop a theoretical framework for the present study. The literature review was focused on the following areas: 1- Attachment and 2- Trauma, specifically complex trauma with an emphasis on the biological underpinnings of many of the mental and physical health issues which STJ Survivors experience particularly as they relate to epigenetics and other neurobiological factors. Overall the literature supported the contention that STJ survivors typically have insecure attachment and often experience trauma, abuse and/or neglect (Bracey, 1983; Countryman-Roswurm & Shaffer, 2015; Hom & Woods, 2013; Yates & Oliver, 2016).

Attachment Theory, based on the work of both John Bowlby and Mary Ainsworth was a revolutionary theory that changed the conceptualization of maternal bonding and its importance in the healthy development of children (Cassidy & Shaver, 2008; Ainsworth & Bowlby, 1991 as cited in Bretherton, 1992). The main tenets of attachment theory will be provided especially as they relate to STJ survivors. Further, discussion of how attachment theory can be utilized in therapeutic interventions with STJ survivors is also expounded upon within the present study.

Attachment theory posits that a healthy relationship with one or a few adult caregivers is critical to the healthy development of a child (Bretherton, 1992). As Bowlby (1973) states:

For not only children, it is now clear, but human beings of all ages are found to be their happiest and to be able to deploy their talents to best advantage when they are confident that standing behind them, there are one or more trusted adults who will come to their aid should difficulties arise. The person trusted provides a secure base from which his (or her) companion can operate. (Dodsworth, 2012, p. 533)

Dodsworth (2012) continues by discussing how the need for a secure base is present early in the life of the child and how children's

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confidence in having a secure base fosters self-efficacy and feelings of self-worth.

Attachment theory has evolved over the years with discussion of its implications for humans at all stages of development. In essence, Bowlby and Ainsworth assert that there are two broad categories of attachment: 1- Secure Attachment and 2- Insecure Attachment. Secure attachment occurs when a child has confidence that a caregiver serving as an attachment figure or secure base will be responsive and attentive to their needs (Sonkin, 2016). Conversely, children who are insecurely attached lack the aforementioned representation present within securely attached children (Sonkin, 2016).

Unfortunately, STJ survivors and juveniles at risk of being sex trafficked often have insecure attachment and lack a secure base. Risk factors which place youth at increased vulnerability for insecure attachment are comprised of environmental, biological and genetic factors within both the children and their caretakers. An overview of such risk factors include but are not limited to the following: I- Parent/Caregiver factors: 1- Abuse/Neglect; 2- Addiction (including both substance abuse and addictive behaviors such as gambling etc.); 3- Severe and/or chronic psychological disturbances; 4- Teenage parenting; and 5- Prolonged absence (prison, hospital and/or desertion); II- Factors within the child: 1- Temperament; 2- Medical conditions; 3- Hospitalizations and/or separation; 4- Genetic factors; III- Environmental factors: 1- Poverty; 2- Witnessing or being a victim of violence; 3- Lack of support and/or resources; 4- Multiple out of home placements; 5- High Stress and/or chaos within the family and community; 6- Lack of stimulation. It is suggested that the aforementioned factors (when present) in juveniles increase their likelihood of being trafficked by STJ Offenders.

Many theorists now assert that early experiences such as many of those discussed above which impact attachment also influence biological development, which is referred to as biological embedding (Nelson, Kendall & Shields, 2014). The age old nature versus nurture debate has now transpired into discussion of epigenetics (Walsh & Yun, 2014). Epigenetics is defined as, "alteration in how genes function without changing the underlying DNA sequence," (Gonzalez, 2013, p. 417). Walsh and Yun (2014) discuss epigenetics as a "constant two-way dance between the genome and its environment," (p. 411) and define allostasis as, "a process that restores a physiological system to homeostasis by changing its set points," (McEwen & Wingfield, 2003 as cited in Walsh & Yun, 2014, p. 412). Walsh and Yun (2014) further contend that biological processes such as epigenetics and allostasis are examples of "biological processes that are initiated by environmental events," (p. 412).

It is proposed that early childhood experiences result in development of pathways within the brain that impact behavior, learning, physical and mental health as well as cognitive development throughout the lifespan (McEwen & Wingfield, 2003, Shonkoff, 2012 as cited in Nelson et al., 2014). Nelson and colleagues discuss how environmental conditions impact brain development in children as follows:

Plasticity is defined as the flexibility of neural cells and pathways to alter their structure and function in response to stimulation from the environment... plasticity is protective in early childhood, fitting neural and physical development to the environment each child experiences first in their family and then in new environments including school (McEwen & Wingfield, 2003). Neural development that protects children in environments of early adversity, however, may predispose them to poor outcomes of development and health over the life course. (Nelson et al., 2014, p. 241)

Nelson et al. (2014) further emphasize the importance of early attachment relationships and the social environment in which juveniles are raised to plasticity.

Attachment relationships are of paramount importance to the developing child as has been demonstrated in research conducted on both human and animal models (Nelson et al., 2014; Moles, Kleifer & D'Amato, 2004; Walsh & Yun, 2014). Relationships which children

have with adults in their environment and their resulting emotions impact their brain development (Nelson et al., 2014). Throughout the literature, the hypothalamic-pituitary-adrenal (HPA) axis and the sympathoadrenal medulla (SAM) are discussed as they relate to attachment and in particular, maternal care (Walsh & Yun, 2014 & Nelson et al., 2014). The HPA axis is a stress response mechanism that effectively releases cortisol, however under frequent or chronic conditions of stress, allostatic overload can occur resulting in an overproduction of cortisol leading to decreased adaptation to stress and onset of anxiety and/or depression especially in females whom are maltreated (van Voorhees & Scarpa, 2004 as cited in Walsh & Yun, 2014). Dysregulation of the HPA axis is caused by poor and/or abusive maternal care as evidenced in studies on both humans and animals (Walsh & Yun, 2014). Nelson et al. (2014) further describes the implications of maladaptive HPA axis functioning as it is related to attachment as follows:

Within a secure attachment relationship, the child who finds himself or herself in a stressful environment will look for a familiar loved one and feel safe in their care. When the child feels safe, hormone release at the sympathoadrenal medulla (SAM) pathway and HPA axis is stabilized and allostasis is maintained. This response supports plasticity providing a stable foundation on which further development will be patterned into brain pathways (Hertzman, 2012 as cited in Nelson et al., 2014). On the other hand, the brain pathways of children who do not have the protection of secure and nurturing relationships can be impaired by ongoing stress, creating the allostatic load. This response which is patterned into the brain to protect the immediate survival in a harsh environment, develops at the cost of later metabolic functioning, immune response, emotional and social regulation, as well as cognitive functioning and learning. These persistent cognitive and health effects have been referred to as the biological embedding of social adversity (Rutter, 2012, p. 17149 as cited in Nelson et al., 2014, p. 243).

Understanding of the environmental impact on brain development in children is relevant to the discussion of vulnerability factors present in STJ survivors and/or youth at risk of being sex trafficked as many of these juveniles have insecure attachment and face early adversity within the environment in which they are raised as a young child.

Early adversity in many STJ survivors further increases their vulnerability to being sex trafficked as biological embedding may likely lead to impaired intellectual/cognitive functioning. STJ survivors with biological embedding will also have increased rates of mental health issues and chronic physical illnesses placing them on a trajectory for long term health issues throughout the course of their lives (Pollack, 2014). The typical STJ survivor experiences chronic stress that likely began early in their development (resulting in biological embedding) which is then exacerbated within the juvenile while being trafficked.

Stressors associated with abuse and neglect especially within early child development further increase the likelihood of addiction to illicit drugs and alcohol (Walsh & Yun, 2014). As Walsh and Yun (2014) state, "Drugs of abuse can both stimulate the HPA axis to increase the perception of reward and at the same time function as self-medications to alleviate stress," (p. 421). Walsh and Yun (2014) further contend that experimentation with drugs is particularly detrimental during adolescence given the normal synaptic pruning, as the brain is highly susceptible to epigenetic changes at that time (Walsh & Yun, 2014). These findings are highly relevant to STJ survivors and youth at risk of being sex trafficked as the average age of recruitment and duration of time being sex trafficked occurs during this period of development for youth.

It is not surprising that the most prevalent psychiatric diagnoses identified in STJ survivors are Post Traumatic Stress Disorder (PTSD) or Complex PTSD (CPTSD) and depressive disorders as well as other disorders such as substance use related disorders and reactive attachment disorder (RAD) (Hom & Woods, 2013; as cited in Countryman-Roswurm & Shaffer,

2015; Yates, Fuller & Oliver, 2016). RAD is frequently present in children who have experienced early adversity such as abuse and/or neglect and in children in foster care (Yates, Fuller & Oliver, 2016). It has also been contended that there are many STJ survivors with RAD (Yates et al., 2016). Juveniles with RAD are especially vulnerable to recruitment into STJ given their insecure attachment and lack of ability to discern safe and healthy relationships (Yates et al., 2016).

Moles, Kieffer and D'amato (2004) conducted a study which suggested that there is a molecular mechanism for diseases such as RAD which are characterized by attachment deficits. Moles and colleagues contend the following assertion:

“Individuals with early life adversity and diminished capacity for mentalization are at a great disadvantage in their interpersonal relationships and their ability to face future challenges. It may be that nature attempts to ensure the development of empathy, so critical for social cooperation through mirror neurons located in the premotor cortex. These mirror neurons appear to be a neural substrate for empathy and enhance the ability to perceive actions, sensations, and emotions of others (Schulte-Rüther et al., 2007). Perhaps infantile autism and reactive attachment disorder can in part be explained by failure of mirror neuron development,” (Moles et al., 2004 as cited in Kay, 2009, p. 292)

Thus, STJ survivors with RAD may have increased likelihood for deficits in mirror neuron development. This is particularly important to note given that the mirror neuron system (MNS) has been proposed as having a critical role in attachment (Rajmohan & Mohandras, 2007).

In addition to the role that the MNS plays in attachment with caregivers, it is also involved in the STJ offender/STJ survivor relationship (Buk, 2009). Buk (2009) explains, “...during interpersonal trauma, there are disturbing implications for the survivor in that the functioning of his or her MNS produces a “shared body state” with the perpetrator through the process of embodied simulation. In other words, the perpetrator’s malevolent actions and emotions are automatically embedded in the mind of the survivor, as if the survivor had also committed the traumatic acts,” (p. 66). Implications of these findings are important especially as they relate to development of therapeutic interventions for survivors. Therapeutic interventions should recognize the trauma bonding that often occurs in STJ offender/STJ survivor dynamics.

STJ offenders provide a false sense of love and an unhealthy attachment relationship. STJ offenders also often create the illusion of a fantasy life and prey on the juvenile victim’s vulnerabilities and attachment issues, specifically the issue of abandonment (Bracey, 1983). In many cases, STJ Offenders threaten to leave the juvenile which can result in the victim’s perception of the loss of a loved one as well as the potential for a better life as promised by the offender (Bracey, 1983). The offender’s manipulation of the juvenile victim is a psychologically destructive process intended to train and control their victims. This multi-layered method involves several steps, all designed to serve practical purposes in addition to increasing the victim’s physical and psychological isolation.

It is posited that vulnerability to being sex trafficked is increased in juveniles with developmental delays (resulting in their developmental age assessed as younger than their chronological age). The developmental stage referred to as the Identity vs. Identity Confusion Stage in Erikson’s Psychosocial Stages of Development Theory, plays a critical role. Recognition of the interaction between the biological as well as socio-emotional forces during this period of development is imperative in order to have a more comprehensive understanding of the increased vulnerability present in juveniles at this age/stage to the crime of STJ given their levels of socio-emotional development and cognitive functioning (Salkind, 2006). STJ offenders are aware of the juvenile’s desire for love and belongingness at this age and manipulate vulnerable juveniles into believing that they will provide them with love and enable

them to be part of a group through being part of “the game” (the street term for engagement in sex trafficking).

Social Learning/Cognitive Theory (SLT/SCT) (Bandura, 1977; Bandura, 2004) serves as an ideal theoretical framework to describe how juveniles are recruited and maintained in sex trafficking. It can also be used as a model for prevention programs for juveniles at risk of being recruited into sex trafficking. At the most basic level the interaction between: 1- The STJ survivor’s environment (often in areas of poverty where the sex trade is prevalent and where prostitution may be modeled to the victim by a family member or others within the community); 2- Personal factors (including but not limited to insecure attachment) and 3- Cognitions (such as low self-esteem and low self-efficacy); and 4- Behavior (such as being trafficked) are important as they relate to the recruitment and maintenance of juveniles once recruited into sex trafficking. With respect to the application of SLT/SCT to prevention and intervention initiatives, it is asserted by the authors of the present study that prevention programs based on SLT/SCT that employ cognitive behavioral therapy (CBT) will increase the coping skills, self-efficacy and self-esteem of participants, serving as protective factors against recruitment into sex trafficking. It is important to recognize that a positive therapeutic relationship between a survivor and their therapist also plays a critical role in the survivor’s recovery. It is also anticipated that the aforementioned therapeutic techniques when coupled with stabilization and provision of basic needs, and appropriate screening assessments (Cole et al., 2014) will facilitate a successful recovery for STJ survivors.

The research question for the qualitative analysis is: How do STJ survivors perceive and make meaning of their experience in sex trafficking? The conjecture for the qualitative analysis is that the STJ survivors will share about how their negative experiences in childhood and lack of support from caretakers increased their vulnerability to recruitment into sex trafficking. Latent class analysis was also conducted to investigate the following research questions: 1- What are the conditional probabilities of increase in substance use, type of motivation to testify and type of caretaker as the primary guardian for the STJ survivor as a child given latent class membership? and 2- What predicts membership into the specific latent classes? Additionally, a binary logistic regression analysis was conducted to further examine the likelihood of STJ survivors reporting an increase in substance use after being recruited into sex trafficking.

It was hypothesized that three to four latent classes would emerge with all of the following indicators: 1- Increase in drug use; 2- Increase in alcohol use; 3- Motivation to testify and 4- Type of primary caretaker as a child serving as predictors of membership into specific latent classes. It was also hypothesized that the youngest STJ survivors would have the greatest likelihood of an increase in substance use after their recruitment into sex trafficking.

## 2. Method

### 2.1. Participants

This study includes 179 survivors in cases involving the sex trafficking of juveniles that were adjudicated from 1990 to 2011. All 179 survivors were included in the latent class analyses. Three STJ survivor interviews were included in the qualitative analysis.

### 2.2. Materials and procedure

#### 2.2.1. Protocols and software utilized for statistical analyses

Protocols were developed that included the following: 1- Demographics of the offenders and survivors, 2- Aspects of the criminal act perpetrated by the offender, and 3- Information regarding the background of the survivor. The data was derived from review of case files including law enforcement records, official criminal histories, and interviews with offenders, investigators and survivors among other sources

of data. SPSS Predictive Analytics Software v.21 (2012) was utilized to analyze the descriptive statistics and conduct the binary logistic regression analyses. Latent Gold 4.5 (Vermunt & Magidson, 2005) was used to conduct the latent class analyses.

## 2.2.2. Statistical analyses

**2.2.2.1. Latent class analysis.** Identification of latent segments or types of latent classes is an important statistical analysis technique as it enables one to effectively evaluate similar yet distinct classes or types within the population under analysis within a study (Statistical Innovations, 2016). Vermunt and Magidson (2004) define latent class analysis (LCA) as a statistical model in which, "...some of the parameters of a postulated statistical model differ across unobserved subgroups," (p. 1). These unobservable subgroups or segments referred to as latent classes (Vermunt & Magidson, 2004) are based upon latent variables referred to as indicators or indicator measures. As discussed in Fox and Farrington (2012), "The goal of this technique is to group subjects into categories where individuals within a group are similar to each other but qualitatively different from individuals in other categories," (Muthen & Muthen, 2000 as cited in Fox & Farrington, 2012, p. 1591). In order to adhere to best practices in statistical methods, parsimony was of paramount importance and thus 1–4 potential classes were selected within the analysis of the LCA Model. Further, the following goodness-of-fit values/criteria were examined to identify the best model fit: 1- Bayesian Information Criterion (BIC); 2- Log Likelihood (LL) and the number of parameters were all factored into the decision as to which model had the best fit. Models with lower values are typically chosen as they indicate the best fit to the data.

**2.2.2.2. Logistic regression.** Logistic regression predicts categorical dependent variables from predictor variables. Logistic regression effectively analyzes discrete social phenomenon which may be more qualitative as opposed to quantitative or continuous in nature, and are typically dichotomous. Pampel discusses such phenomenon as follows, "an event occurs or it does not occur, a person makes one choice but not the other, an individual passes from one state to another," (Pampel, 2000, p.1). Examples of such phenomenon include yet are not limited to the following: death, marriage, being arrested and voting (Pampel, 2000).

## 2.2.3. Qualitative research analysis

A basic interpretive design (Merriam, 2002) was conducted in order to gain a greater understanding of how STJ Survivors perceive their experience being trafficked. The participants were three female STJ Survivors who were at least 18 years of age at the time of the interview. Data analysis was conducted through the constant comparative method (Creswell, 2007). A meticulous transcription of each interview included notation of non-verbal communication.

Upon review of the video-recorded interviews and reading through the transcripts multiple times, the transcripts were coded by focusing on broad themes that emerged through the open coding procedure (Strauss & Corbin, 1990, 1998 as cited in Creswell, 2007). A chart was created in which emergent codes were identified and defined and evidence in the form of quotes was provided along with the researcher's interpretation of the data (Wright, 2011). A matrix providing a visual depiction of the codes, their definitions and their categorization was completed and analytic memos were created to facilitate reflection and analytical insight as well as to organize the data (Creswell, 2007; Wright, 2011). Additionally, reflective memos were created in order to be cognizant of transference and potential bias that may occur given that the researcher is the instrument of analysis within qualitative research (Miles & Huberman, 1994; Wright, 2011). Ultimately, inductively derived themes arose from the voices of the STJ Survivors participating within the study.

## 3. Results

### 3.1. Demographics

A total of 179 survivors (excluding duplicate victims across offenders) were included within the study. Of those 179 survivors, all were female and the majority were African-American (37.4%;  $n = 67$ ) or Caucasian (34.1%;  $n = 61$ ). The remainder of the survivors were Hispanic (15.6%;  $n = 28$ ); Asian (2.8%;  $n = 5$ ) or classified as "Other" (3.9%;  $n = 7$ ). Further, 6.1% ( $n = 11$ ) of the victims' race/nationality was unknown. The STJ survivors in this sample are all female and range in age from 11 to 17 years with an average age of 15 at the time of recruitment into sex trafficking.

### 3.2. Binary logistic regression analysis

The results from the binary logistic regression analysis suggest that a STJ survivor (when recruited into sex trafficking between 12 and 14 years of age) is 1.9997 times more likely to increase the amount of alcohol that they consume. In other words, the model predicts that 67% of STJ survivors recruited between the ages of 12–14 years old increased their use of alcohol after being trafficked by STJ offenders.

### 3.3. Latent class analyses- estimation of latent classes

A three-class model was determined to be the best fit for the data based on goodness-of-fit measures for both of the latent class cluster analyses conducted within this study. Model I included the following indicators: 1- Alcohol Use Increase; 2- Drug Use Increase; 3- Internal and External Motivation to Testify and 4- Internal Motivation (Solely) to Testify. The covariate of age was also included as part of Model I. The three clusters in Model I were labeled as follows: Cluster 1 (Model I- C1)- Youngest STJ survivors; Cluster 2 (Model I- C2)- Oldest STJ survivors and Cluster 3 (Model I- C3)- Average/Median Age of STJ survivors. Model I- C1 was estimated as 39% of the population; Model I- C2 was approximately 37% of the population and Model I- C3 comprised the remaining 24% of the population.

Similarly, there were three clusters in the latent class Model II which was comprised of the following indicators: 1- Alcohol Use Increase; 2- Drug Use Increase; 3- Adoptive/Foster/Multiple Caretakers as the primary guardian(s) for the STJ Survivor as a child; 4- Biological Parents and/or Relatives as the primary guardian(s) for the STJ survivor as a child as well as the covariate of age. The three clusters in Model II were labeled as follows: Cluster 1 (Model II- C1)- Oldest STJ Survivors; Cluster 2 (Model II- C2)- Youngest STJ survivors and; Cluster 3 (Model II- C3)- Average/Median Age of STJ survivors. Model II- C1 was estimated to be around 45% of the population; Model II- C2 was approximately 36% of the population and Model II- C3 comprised the remaining 19% of the population.

In Models I & II, the offenders were assigned into the cluster in which they had the maximum posterior probability of membership. In summary, Model I- C1 & Model II- C2: The youngest age group of STJ survivors in both models were the groups with the highest likelihood of increasing drug and alcohol use post being trafficked. Whereas Model 1- C2 & Model II- C1: The oldest age group of STJ survivors in both models had the lowest probability of having an increase in drug and alcohol use post being trafficked.

### 3.4. Qualitative analysis themes

Multiple themes emerged through the open coding which were reviewed and collapsed within the axial coding process. All participants (referred to as Participants A, B and C) reported a history of neglect, physical and sexual abuse during their childhood. Participants A, B and C also discussed how prostitution was modeled to them within their

community and/or family of origin. All three participants reported having an absent and/or a neglectful father who engaged in poor parenting.

The participants all lived in foster care at some point and had multiple caretakers. The most prevalent psychiatric diagnoses included: 1- Bipolar Disorder (Participants B and C); 2- Major Depressive Disorder (Participant B); 3- Post Traumatic Stress Disorder (PTSD) (Participant A); 4- Anxiety Disorder (Participant A); 5- Sleeping Disorder (Participant A); and 6- Substance Use/Abuse (Participant C). Participants had inpatient mental health treatment including provision of psychotropic medication (Participants B and C) as well as intensive mental health treatment (Participants A, B and C) in one case extending to outpatient care (Participant A).

With respect to medical issues, participants reported having sexually transmitted diseases (Participants B and C) and permanent physical injuries (Participants A and B). Themes such as running away and living in areas of poverty were discussed in all participant interviews however at some point Participants A and B also reported living in an affluent and/or middle class area with family members. Participants A and B also reported having excellent grades at some point in time, obtaining scholarships and engaging in many extracurricular activities. All participants stated that they had minimal to no emotional support from their caregivers and no social support from peers (other than some support from other STJ survivors while being trafficked).

Ultimately a logic diagram was developed to visually depict the experience of the survivors. The logic diagram details the participants' transition from being recruited into sex trafficking, being sex-trafficked and then the intervening factors that enabled them to escape their traffickers and recover from their experience (See Fig. 1). The primary themes which emerged are expounded upon within the section below.

3.5. "Filling the void" in their lives

An overarching theme expressed was that all the participants had been through something at home not necessarily that they all came from a bad home, but that they've all been through "something". It was that "something" that the STJ offenders sought to find out and their objective was to "fill the void" present in the vulnerable juveniles which is how they were able to recruit and maintain control of the juveniles once recruited.

One participant stated, "It was just merely the fact that I never felt accepted, like I belonged anywhere...I mean that is what I was looking for." This participant discussed how she thought that through being trafficked she would be able to fill that void. She stated she was unaware of the reality of sex trafficking and instead was enamored with the glorified image of what she thought it would be like.

A different participant reported she didn't feel as though she had a family with whom she could talk. It is important to note that this survivor was part of the child welfare system and lived with over 30 different foster families after being removed from her family of origin due to sexual abuse and neglect. Another survivor discussed how she felt that she did not have friends and was alienated from her peers due to her history of engaging in "survival sex" when neglected as a youth by her caretaker. She defined "survival sex" as having sex to get basic life necessities one requires such as food and shelter as well as emotional needs such as attention.

She also reported how her lack of friends made her particularly vulnerable to a recruitment tactic employed by one of the STJ offenders. The aforementioned STJ offender used a ruse in which she was recruited

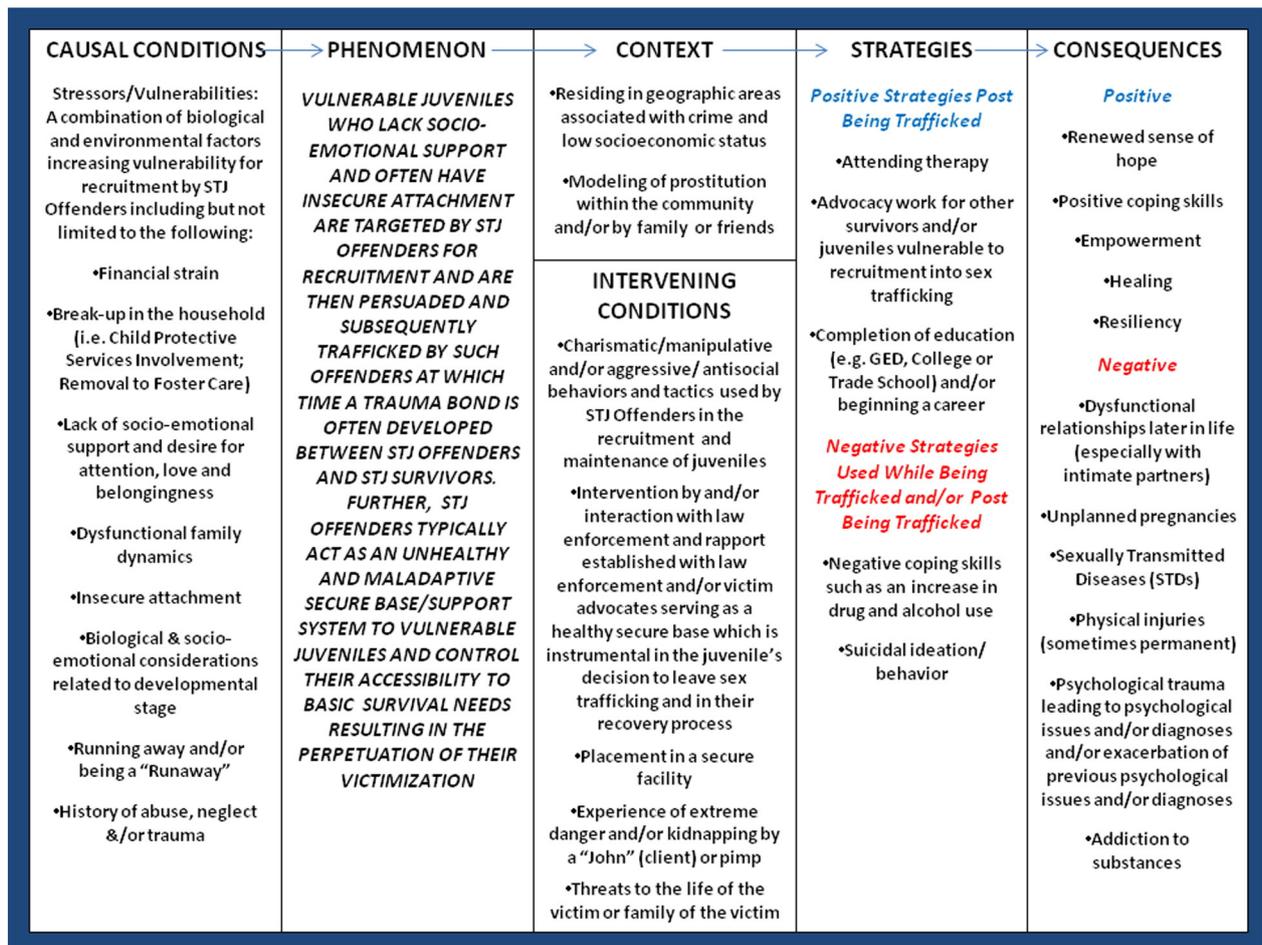


Fig. 1. Integrative bio-psychosocial model explaining the mediators and moderators involved in the recruitment and maintenance of juveniles trafficked by STJ offenders and factors involved in intervention and the recovery process of STJ survivors.

into sex trafficking by other juveniles close to her age (under the control of the STJ offender) who the participant thought were genuine friends. It is also important to note that all three of the participants interviewed had multiple caretakers as a child, a factor which significantly contributes to increased likelihood of insecure attachment and lack of a secure base and thus increased vulnerability to sex trafficking.

### 3.6. Intervention

#### 3.6.1. Importance of being detained in a secure facility

The first subtheme under the second primary theme of “*Intervention*” that emerged in the interviews was discussion of how being arrested and detained in a secure facility was critical in facilitating her successful rescue from sex trafficking. One of the participants explained how in retrospect she sees her experience as being one in which she was “brainwashed” at the time and in order to enable her to leave sex trafficking it was critical to be in a secure facility for her own safety. When this survivor was asked how long she believed it took for her to come to the aforementioned realization and whether she believed that she was able to see the reality of the situation as a result of being in a secure facility, the participant responded by saying that it took almost the entirety of time which she was in the secure facility to come to the realization and she believes she was only able to do so as a result of that experience.

The Interviewer continued by asking the participant what her opinion was about the debate regarding detaining STJ survivors in secure facilities. The Interviewer described the two schools of thought regarding how STJ survivors should be treated within the criminal justice system. The Interviewer discussed the first school of thought that a survivor should not be placed in a secure facility because one is treating a STJ survivor as if he/she is a criminal when in fact he/she is a victim. The Interviewer then discussed another school of thought which recommends placing a juvenile in a secure facility so she will be in a safe location. The participant responded by saying that juveniles should be placed in a secure facility as that is what helped her escape sex trafficking.

The participant continued by saying that in her experience being detained in a secure facility is what made her come around through being reminded that the way she was treated while trafficked was not acceptable. She also discussed her experience in counseling and how she was able to gain a new perspective. She shared about the clarity she gained through listening to younger survivors' distorted perspectives.

#### 3.6.2. Law enforcement serving as catalysts in the survivors' escape from sex trafficking and their recovery process

The participants discussed how their positive relationship with law enforcement was the key factor in their escape from sex trafficking. Participants said that being treated with respect as well as provided with assurance that they were considered victims and that law enforcement was there to help was instrumental in their decision to cooperate and testify. One participant shared that the provision of resources and emotional support by law enforcement had such a significant impact on her life that she left sex trafficking and attended therapy resulting in her recovery.

#### 3.6.3. Resilience and advocacy for other survivors and/or youth at risk of recruitment into sex trafficking

Another theme discussed by participants was their recovery process and their retrospective insight. When asked to share something with other juveniles about their experience, the participants said: 1- Sex trafficking was a waste of time; 2- They would advise juveniles not to run away; and 3- There are other alternatives to sex trafficking. One participant said she would tell others that they could spend time working in a legitimate job where they could keep the money they earned and that they could do more with their lives. Another participant said it is important not to run away because STJ Offenders seek out juveniles who are young and naïve. It was also voiced that it is important for juveniles to

know about community resources and alternatives to running away and/or getting involved in sex trafficking. Effective therapy and mentorship were key components in the recovery process as they enable one to reflect upon their experience with a lens of resilience.

## 4. Discussion

The primary themes that emerged within the qualitative analysis suggested that STJ survivors typically have insecure attachment, expressed need for belongingness, and love/attention. STJ offenders exploit such needs in vulnerable juveniles oftentimes through charismatic persuasion. Other prominent characteristics of STJ survivors included: 1- Conflict with family; 2- Financial strain and 3- Break up in the household (i.e. CPS involvement and/or removal to foster care). Unfortunately survivors of STJ also experience multiple detrimental effects as a result of their experience in sex trafficking including but not limited to the following: 1- Development and/or exacerbation of psychological issues; 2- Suicidal ideation and/or behavior and 3- Various other physical injuries, sexually transmitted diseases and/or unplanned pregnancies.

STJ offenders served as an unhealthy and maladaptive version of what is referred to in the attachment literature as a “secure base”. [Dodsworth \(2012\)](#) discusses the need for a secure base present early in life and its impact on one's ability to develop self-efficacy and self-worth (Howe, 2005, 2008; Schofield and Beck, 2006 as cited in [Dodsworth, 2012](#)). STJ survivors often lack a secure base. With the preceding in mind, it is important to note a key finding from this study is that STJ survivors reported disclosing their abuse because of rapport established with law enforcement.

This finding suggests that law enforcement and/or victim advocates may serve as the first positive adult role model in the juvenile's life and exemplify a healthy “secure base”. The expectation is that the aforementioned positive experience with law enforcement may model healthy attachment and serve as a bridge to other functional relationships that the survivor can have with individuals in their lives as they recover. Continued efforts should be focused upon building trusting and supportive relationships between survivors, law enforcement and victim advocates (such as mental health professionals and/or mentors) as many survivors reported that such relationships were instrumental in their recovery and decision to assist the appropriate authorities in bringing STJ offenders to justice.

The aforementioned results can also inform treatment and prevention initiatives. As [Dodsworth \(2012\)](#) states:

“...what is crucial in the development of a belief in one's acceptance and consequent ability to move forward is rebuilding the ability to trust, not always fostered in childhood for these women- that someone will be there for you and will listen in a non-judgmental, non-rejecting way. Qualities of resilience appear to have been developed by the support these women received in exiting sex work and in their own consequent, increased sense of self-esteem. This almost unconditional notion of “being there” has, for these women, become the “secure base” they only ever fleetingly or inconsistently experienced in childhood, but need in order to reduce anxiety and build feelings of self-worth, self-efficacy and resilience,” (p. 530).

The preceding assertion from [Dodsworth \(2012\)](#) regarding the critical role that advocates for STJ survivors have in the recovery process of the survivors emphasizes the importance of the relationship between the STJ survivor and their advocate(s). STJ survivors can expand upon their ability to form healthy relationships through therapy with a mental health professional that fosters therapeutic progress through the provision of a “secure base” within the therapeutic relationship as well as promotes resilience and empowerment ([Dodsworth, 2012](#)).

According to the extant literature, group therapy and life skills programs are beneficial for survivors of STJ and certain forms of experiential therapy are successful for survivors of abuse. Recent research

further contends that although epigenetics can have a negative impact on the health of individuals such as STJ survivors, it is not something that is irreversible, and interventions such as counseling can enable adaptive change leading to healthier lives (Russell-Chapin & Jones, 2015; Pollack, 2014; Gonzalez, 2013; Graham, 2016).

Therapy focused upon changing maladaptive neural pathways developed through early adversity and biological embedding may lead to successful outcomes within many STJ survivors. As Graham states:

“It is essential to understand experience dependent maturation of the brain to understand the importance of early attachment experiences to shape the brain and our patterns of relating and to embrace the power of new attachment relationships in therapy to re-wire the memories learned in this part of the brain...Repeated experiences cause neurons to fire repeatedly. Neurons that “fire together wire together,” strengthening neural connections. Strong neural connections become neural pathways and neural networks. This experience-triggered neural firing is how ALL neural pathways become patterns of response, and how all structures of the brain mature. This is how all patterns of attachment are laid down in the brain; it is also how they can change,” (Graham, 2016).

Specific therapeutic interventions suggested within the literature include guided imagery/visualization which activates the “right hemisphere mode of processing images to re-wire old patterns in the brain,” (Graham, 2016) as well as cognitively based compassion training (Gonzalez, 2013). Gonzalez (2013) states that, “Collectively, there is evidence suggesting that psychosocial or cognitively based interventions have the potential to circumvent the negative impact on biological systems associated with childhood maltreatment,” (p. 417). As is supported within the literature, the authors of the present article contend that an integrative model incorporating empirically supported treatments such as TF-CBT as well as life skills programs, group therapy and experiential therapy along with a treatment plan including treatment goals to address attachment issues and interventions aimed at modeling healthy relationships will assist survivors in their recovery process and should be included in both prevention and treatment programs.

It is important to note that while all three of the participants reported running away and living in areas of poverty at some point, two of these three participants also reported living and/or attending school in an affluent and/or middle class area as well. Thus while it is recognized that socioeconomic status does play a significant role as a vulnerability factor for juveniles it is only one part of the larger issue/picture. What appears to be a more salient vulnerability factor is the lack of socio-emotional support within the STJ survivors' life reported by all of the participants interviewed therefore the issue of STJ spans across a diverse population of youth which may become vulnerable to STJ offenders.

With respect to limitations, given the fact that most of the survivor data (other than the data collected directly from the three participants in the qualitative interviews) was obtained through official law enforcement records and/or interviews with investigators who worked directly with the survivor in the case we recognize that we do not have a direct clinical assessment of attachment in the survivors within this study however the fact that many of the survivors within this study were part of the foster care/child welfare system and/or had multiple caretakers throughout their childhood indicates an increased probability for insecure attachment. Future research including direct clinical assessment of attachment and other psychological issues may provide further insight which can then be applied to development of enhanced therapeutic interventions for STJ survivors. This information will also be informative for other professionals working with STJ survivors and/or STJ offenders.

In light of increased rates of sex trafficking occurring domestically as well as internationally, there is a need for future research to be conducted by interdisciplinary teams of professionals. While the existing body of research serves as a good foundation, expansion upon such research

is needed for development of a more comprehensive understanding of the crime of sex trafficking. The expectation is that the spectrum of STJ survivor characteristics discussed within the present article can inform professionals working with STJ survivors as to factors resulting in resiliency as well as factors that increased the vulnerability of some survivors into recruitment by sex traffickers.

The second author serves on the American Psychological Association's Task Force on the Trafficking of Women and Girls. In the Executive Summary: Report of the Task Force on Trafficking of Women and Girls, a call was recently made for further research. Ongoing research examining current crime trends in STJ especially as they relate to technological advances as well as additional qualitative interviews with STJ survivors and STJ offenders will provide a more comprehensive understanding of STJ. Collaborative research initiatives between many national and state agencies within the United States of America as well as internationally are imperative in order to address the growing issue of domestic sex trafficking of minors within the United States as well as abroad.

With the recent passing of the Justice for Victims of Trafficking Act (JVTA) of 2015 laws have been created and/or amended to improve investigations of sex trafficking as well as to place greater accountability on STJ offenders along with increased penalties. Penalties such as fines which will be placed into a fund designated specifically for STJ survivors will provide restitution as well as funding for well needed victim services and training for professionals involved in assisting STJ survivors and bringing STJ offenders to justice. The expectation is that the laws and initiatives set forth in the 2015 JVTA in coordination with research initiatives aimed at enhancing understanding of STJ will improve the application of law enforcement for professionals working with STJ survivors and STJ offenders. The development and implementation of enhanced treatment and prevention programs for at-risk youth and/or STJ survivors will likely result in reduction and prevention of harm to vulnerable juveniles.

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