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Can Using a Smartphone Application Improve the Ability of Law Enforcement Officers to Recognize Commercially Sexually Exploited Children and Report Them to Child Welfare Authorities?

Sheree Goldman
California State University, Northern California Consortium Doctor of Nursing Practice

ABSTRACT

CAN USING A SMARTPHONE APPLICATION IMPROVE THE ABILITY OF LAW ENFORCEMENT OFFICERS TO RECOGNIZE COMMERCIALLY SEXUALLY EXPLOITED CHILDREN AND REPORT THEM TO CHILD WELFARE AUTHORITIES?

The commercial sexual exploitation of children (CSEC) is a crime of abuse that is frequently unrecognized because mandated reporters may be unfamiliar with the indicators. Commercially sexually exploited minors participate in sex acts in exchange for money, goods, or services. At least 200,000 American children are believed to be victims of this crime each year (County Welfare Director Association of California, 2015). Victims often go undiscovered and experience significant health issues. A public health model is used to explain the context of victimization and the need for interdisciplinary collaboration to discover victims and connect them with needed services. A randomized controlled study with a pre-test and post-test design was used to determine if a smartphone application (app) could be used by law enforcement officers, who frequently encounter these victims in their work, as an electronic decision pathway. One hundred and three subjects from five police agencies were surveyed in a classroom setting. The results showed that the difference between the pre-test and post-test scores was significant ($p < 0.001$) in the intervention group and that the use of an app may be beneficial to identifying victims and promoting interdisciplinary collaboration. Future direction includes adaptation of the app for use by other disciplines such as health care professionals and educators.

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May, 2018

CAN USING A SMARTPHONE APPLICATION IMPROVE THE ABILITY OF LAW ENFORCEMENT OFFICERS TO RECOGNIZE COMMERCIALLY SEXUALLY EXPLOITED CHILDREN AND REPORT THEM TO CHILD WELFARE AUTHORITIES?

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Sheree Goldman

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For the California State University, Northern Consortium
Doctor of Nursing Practice:

We, the undersigned, certify that the project of the following student meets the required standards of scholarship, format, and style of the university and the student's graduate degree program for the awarding of the master's degree.

Sheree Goldman
Project Author

DNP, RN
Gail Burmeister (Chair) Nursing

Lauren Zephro
Lauren Zephro Santa Cruz Sheriff's Office

David Ramos Medical Director (retired)
Monterey County Sexual Assault Response Team

Ed Hazel District Attorney's Office of Monterey County (retired)

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Signature of project author: Sheree Goldman

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TABLE OF CONTENTS

Page

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

CHAPTER 1: INTRODUCTION

Commercial sexual exploitation of children (CSEC) is an important nursing issue and is defined by Public Health as "a significant health issue" because of the substantial physical, mental, and emotional problems that are experienced both acutely and chronically by these victims (Chon, 2016). Social responsibility for crimes against humanity, such as CSEC, is embedded within the nurse's code of ethics and calls for nurses to respect human dignity, collaborate, and alleviate suffering (Skate, 2015). These children may not self-identify as victims when they appear in a clinic or hospital, or their exploiters may not allow them to access health care. Intra-professional collaboration is essential when addressing such a complex problem and requires the cooperation of advocacy agents, child welfare and health care professionals, and law enforcement officers. Law enforcement officers are likely to come across CSEC in their work, and if they recognize that the children are commercially sexually exploited, they can collaborate with other disciplines so that the youth can be connected with the services they need. The use of a smartphone application (app) may improve the ability of law enforcement officers to recognize CSEC and then to follow the necessary procedures to connect them with child welfare services.

Problem

The commercial sexual exploitation of children is a crime of abuse that is frequently unrecognized because mandated reporters may be unfamiliar with the indicators of victimization or may have a knowledge deficit regarding reporting to child welfare authorities and collaborating with sexual assault forensic teams and advocates. Police officers are likely to encounter victims of CSEC in the line of

duty but may do so infrequently or have limited training on how to recognize and report victims.

Purpose

Using a theoretical framework of the ecological model of social determinants of health, commercial sexual exploitation of children is viewed as part of a continuum of violence rather than an isolated event. The project aims to improve the ability of law enforcement officers to identify commercially sexually exploited children and refer them to child welfare authorities, encourage inter-professional collaboration with health care and advocates, and accomplish the common goal of helping children receive needed services by means of an electronic decision-making pathway.

Background

Commercial sexual exploitation of children is the term used for a crime that involves many types of victimization. Like a matroyshka nesting doll, CSEC is concealed within the crime of child sexual abuse, and both CSEC and child sexual abuse are enclosed in the broader category of child abuse. CSEC includes several types of sexual offenses, such as child pornography, sex trafficking, and child marriage. Victims of commercial sexual exploitation participate in diverse sex acts in exchange for money, goods, or services, and payment may be made to the victim or to a third party. Under Federal law, any person under the age of 18 may not give their consent for involvement in commercial sexual acts (ECPAT, 2016).

Significance

At least 200,000 American children are believed to be victims of commercial sexual exploitation each year, and a common age of entry into the

commercial sex industry is between the ages of 12 and 14 (California Welfare Director Association of California, 2015). In the past, victims of CSEC have been viewed as juvenile delinquents, addicts, or prostitutes, and were arrested. California Senate Bill 1322, enacted on January 1, 2017, defines CSEC as victims and protects them from criminal charges (West Coast Children's Clinic, 2016).

Several barriers have been identified that prevent law enforcement officers from identifying and reporting CSEC to child welfare authorities, and impediments to identification and reporting of CSEC by law enforcement officers allow for the continued exploitation of victims. It is thought that most CSEC victims are undiscovered for two to three years (County Welfare Director Association, 2015) while continuing to accrue trauma from their exploitation. Law enforcement officers have not always thought of these children as victims, and their view of CSEC may present another barrier to recognizing and reporting them to child welfare authorities.

The knowledge gap about the demographics of CSEC can also act as a barrier to correctly identifying victims. Law enforcement officers may not recognize domestic CSEC victims due to harboring a stereotypical belief that victims of CSEC are young girls who come from foreign countries, and they do not realize that CSEC can be domestic boys and girls of all races, as well as lesbian, gay, bisexual, transgender, and queer/questioning youth (Institute of Medicine and National Research Council, 2014).

Theoretical Framework

Using the ecological model *(see Figure 1),* a public health model of social determinants of health, the life of a commercially sexually exploited child is associated with acute and chronic health problems that include physical injury,

infection, malnutrition, substance abuse, pregnancy, depression, suicide attempts, and psychological trauma (Chon, 2016). Mortality is also a concern given that once a child is living on their own without family or resources, the average lifespan is only 7 years (Birge, 2013).

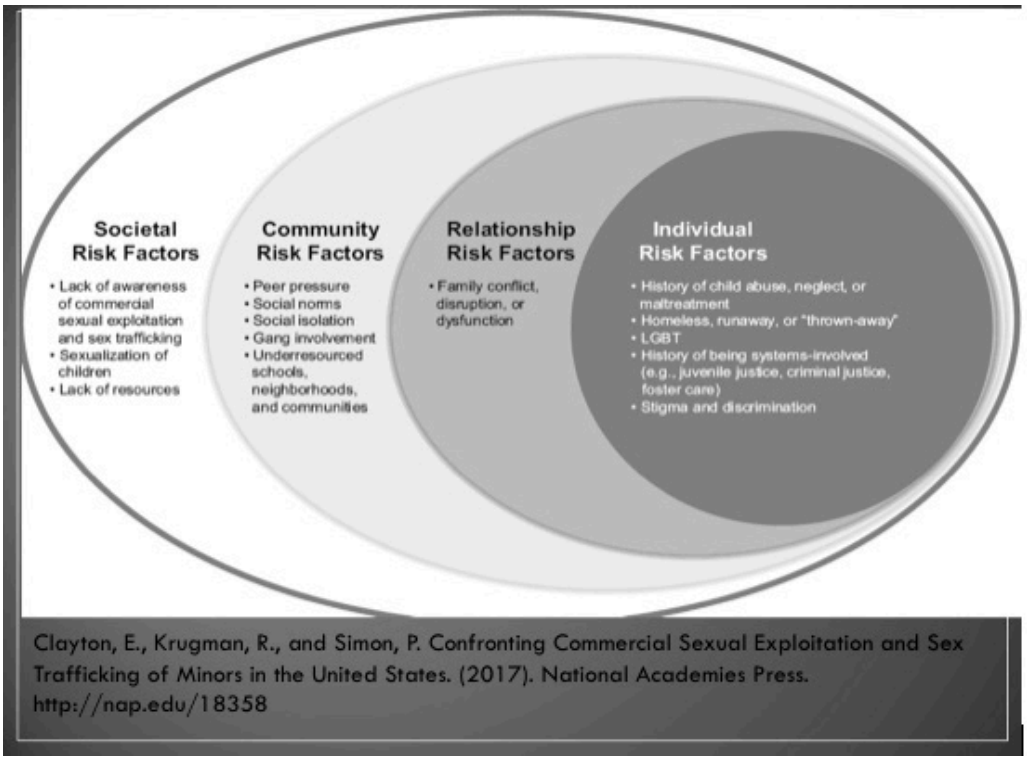

Figure 1. Ecological Model.
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The ecological model originated in behavioral health sciences such as psychology and child development and was expanded to include public health concepts such as epidemiology and health promotion. It is defined as "a model of health that emphasizes the linkages and relationships among multiple factors (or determinants) affecting health" (Institute of Medicine, 2003). Health matters are complex, and individuals do not often think of the effect of social conditions on health, but it is known that circumstances such as where youth live or go to school

are somewhat shaped by resources that are available to them at individual, community, national, and even global levels. When considering CSEC, the model is a good fit because it does not limit its focus to an individual's behavior and instead addresses a broad spectrum of influences. Housing, water, good-quality food, transportation, social support, and public education are all directly related to health. Healthy People 2020 emphasizes that social determinants of health must be considered because they "create social and physical environments that promote good health for all" (Secretary's Advisory Committee, 2010).

CSEC prevents children from being healthy and robs them of their future health as adults. Victims of commercial sexual exploitation (CSE) often carry a prior history of abuse, and what occurs to them during the exploitation adds to their trauma. While being exploited, they frequently have poor school attendance, are not receiving basic health care or nutrition, and are living in an environment associated with crime, substance abuse, and violence. In a "place-based" organizing framework, Healthy People 2020 identifies five essential areas of social determinants of health that are relevant to CSEC: economic stability, education, social or community context, health and health care, and neighborhood and environment (Secretary's Advisory Committee, 2010).

Commercially sexually exploited children come from all stratifications of society, but those who are the most vulnerable have a history of abuse or neglect, have been involved in the social welfare or juvenile justice system, and are disproportionately from racial minorities or identify as LGBTQ+ (Walker, 2014). Many CSEC do not attend school regularly, are economically unstable, are not living with a parent or legal guardian, and may be associated with neighborhoods or a society that lack awareness of CSEC or resources to address the issue (Chon, 2016). Until the framework of society is rebuilt to support these children, they will

remain caught in the web of exploiters who will not afford them the potential for a healthy life.

Aims of Research

Three hypotheses were evaluated to answer the question "Can Using a Smartphone Application Improve the Ability of Law Enforcement Officers to Recognize Commercially Sexually Exploited Children and Report Them to Child Welfare Authorities?"

- Hypothesis 1: There will be a significant improvement in the scores between the pre-test and post-test for the intervention group and not for the control group.
- Hypothesis 2: Within the intervention group, there will be no difference in the change in the change of score from pre-test to post-test between the groups according to gender, age, or years of experience.
- Hypothesis 3: Within the intervention group, there will be no correlation between the measure of the usefulness of the app or the ease of use of the app and the score difference.

The data were gathered to evaluate if the use of the smartphone app could make a difference in the police officers' test scores and also assess the usability of the app from the perspective of the police.

The project has relevance to continuing work in the field. Similar research includes a DNP project by Patrick (2015) that evaluated the willingness of nurse practitioners to screen for CSEC before and after completing a web-based educational module, using a quasi-experimental pre-test/post-test design. Her hypotheses were similar to those associated with this project. Darwinkel (2013) evaluated the likelihood of police officers to authorize filing charges for suspected

sexual assault and blame the victim before and after completing a course on the behavior of sexual predators. Darwinkel's study was also quasi-experimental and used a pre-test/post-test design.

CHAPTER 2: LITERATURE REVIEW

Most studies pertaining to the intersection of CSEC and law enforcement use survey methods. The findings of these studies demonstrate how police interact with commercially sexually exploited children, the estimated number of victims, and risk factors for commercial sexual exploitation. There are no studies that evaluate the knowledge gaps of police about CSEC in conjunction with assessment of the effectiveness of using a smartphone app by police. Seven articles that were retrieved using the Henry Madden Library search engine, One Search, explain some of the mechanisms involved that influence the ability of law enforcement officers to identify and report CSEC, the prevalence of the problem, and characteristics of these victims. The methods in two of the studies, Darwinkel (2013) and Patrick (2015), were instrumental in developing the method for this project.

Darwinkel (2013) evaluated whether police officers' understanding of sexual offender dynamics (achieved through training) would increase their likelihood to authorize filing criminal charges and diminish victim blaming. The study was quasi-experimental and used a pre-test and post-test design with a sample that consisted of 77 sworn police officers in Australia. Data were collected from the participants who completed questionnaires before and after four weeks of training, using a Likert scale. They were given a scenario that involved a possible sex crime and were asked to evaluate the situation and indicate how likely they would be to authorize filing criminal charges and to what degree they believed that the crime occurred because of something the victim did. Data were analyzed using Pearson's correlation coefficient and demonstrated that before training, 18% of the variance in decisions to authorize filing a case could be accounted for by blaming

the victim, and after training the victim blaming dropped to 14% ($p < .01$). The results supported the hypotheses that after training officers demonstrated a better understanding of sexual offender dynamics, and the change in perception increased police authorization of cases and decreased blaming of victims. A strength of this study was that End Violence Against Women (EVAW) developed the training program that was used, and EVAW is held to international standards. A limitation of this study is that it was conducted in Australia and may not be generalizable to other regions due to a difference in laws pertaining to sex crimes.

Patrick (2015) conducted a quasi-experimental study of nurse practitioners to determine their willingness to screen for patients who might be at risk for commercial sexual exploitation, using a theoretical framework of the theory of reasoned action (TRA). The study used a pre-test and post-test design in which the subjects completed a pre-test, viewed a web-based educational video, and then completed a post-test. The sample consisted of 37 advanced practice nurses who worked in a variety of settings and ranged in age from 25 to 65. Three hypotheses were addressed: "Did the educational intervention make a difference?", "Did younger APNs do better than older APNs with a web-based design?", and "Was there a statistical significance in the years of experience or did those with less than 10 years do as well as those with more than 10 years?" Data were analyzed using a dependent and independent paired T-test and revealed no statistical differences between the pre-tests and post-tests for the first hypothesis. Likewise, there was no statistical difference between the scores of the older and younger APNs for the second hypothesis. There was, however, a statistical difference with the improvement of the scores of APNs who had greater than 10 years of experience from pre-test to post-test as compared to the nurses who had fewer than 10 years of experience ($p = .040$). The resulting data demonstrated that the APNs with more

than 10 years of experience scored higher than the nurses with fewer than 10 years, and 85% of the participants stated that they felt the web-based design was simple and provided helpful information and that they were willing to screen their patients. A strength of this study is that the educational intervention was developed by the Polaris Project and provided up-to-date and accurate information about sex and labor trafficking. A limitation of the study is that the sample size of 37 was small and only represented a 6% response rate, which was attributed to technical difficulties with both submission of the Google form pre-test and viewing of the educational intervention.

Roe-Sepowitz (2012) surveyed the nature and extent of childhood emotional abuse in adult subjects who were exiting the commercial sex industry, correlated the data with the age that the subjects reported to have entered into commercial sex work, and used the information to predict the age of entry into prostitution based on childhood abuse. A survey design was used, and a convenience sample of 71 women participated. Their ethnic distribution was reported to be 69% White, 15.5% Hispanic, 12.7% African American,1.4% Native American, and 1.4% Other. The setting was a program in Phoenix, Arizona, that assists prostitutes who want to exit a life of commercial sex. All of the subjects had expressed the desire to leave the life of commercial sex and were surveyed while enrolled in their second week of this program. Three standardized survey instruments were used to collect childhood abuse data: the Esuba Survey (life experience), the modified Parental Psychological Maltreatment Scale, and the Trauma Symptom Inventory. Regression analysis was applied to the results of the surveys. Analyses by *t* tests and chi-square compared the results of women who became involved in commercial sex as juveniles versus women who entered as adults. Subjects who had entered commercial sex as juveniles reported running

away and emotional abuse more often than subjects in the adult group. Subjects who entered commercial sex as juveniles also scored higher on dissociation (p <.01). Subjects who entered commercial sex as adults reported more drug addiction than those who entered as juveniles ($p < .05$). A strength of this study is that researchers created a unique model to analyze how childhood abuse influenced the age that the subjects entered into commercial sex. A significant limitation is that the sample is small and may not be generalizable beyond the group of women in one geographic region who wanted assistance to leave commercial sex.

In a study by Oxburgh (2014), a survey of police interviews of suspects was coded and scored for the degree of empathy that police officers exhibited towards suspects, the appropriateness of the type of questions they asked, and the subsequent confessions that occurred. The survey compared the interviews of suspects who were accused of child sexual abuse, child murder, and adult murder because suspect interviews for these types of crimes are considered to be the most difficult for police officers due to accrued vicarious trauma. Interviews in the survey were coded for the degree of empathy that was expressed by the police officer to the suspect, because many officers believe that empathy for the suspect will elicit a confession. Interviews were also coded for the use of appropriate versus inappropriate questions which were defined as “open-ended” or “leading.” The study used a correlational design, and the sample consisted of 56 interviews of suspects by police that were done over a 4-year period. Sworn officers from a large English police force conducted the interviews, and data were obtained from recordings that had been transcribed and coded. Data were analyzed using chi-square to evaluate the correlation between police officers’ use of empathy and the type of offense, and also to determine if interviewers asked more inappropriate

questions of suspects who were accused of child sexual abuse than those who were accused of other crimes. Correlation analysis was done for the use of empathy, appropriateness of questions, and the amount of information obtained from suspects.

The findings of this study demonstrated that use of empathy alone by interviewers did not affect the amount of pertinent information that was obtained from suspects. When empathy was used in conjunction with open-ended questions, there was significant information obtained from suspects. The findings also showed that police officers asked more leading questions when interviewing suspects of child sex crimes than they did when interviewing suspects who were accused of murder (Oxburgh, 2014). A notable strength of this study is that the interviews were received in paper format and underwent full anonymization prior to coding. A limitation of the study is that the data were obtained from analysis of audio recordings, and non-verbal communication could not be evaluated, as it might have been if video recordings had been submitted.

A study by Andretta (2016) attempted to determine levels of risk for CSEC by identifying known risk factors and comparing them with scores from a sex trafficking assessment risk tool (STAR). A correlational design was used, applying a rubric score to answers given to interview questions. A sample of 901 youth, ages 10 to 19, with a nearly equal male to female ratio were interviewed. The ethnic composition was 95% African American. The setting was a juvenile justice agency in Washington, DC where all youth who were arrested were interviewed for the court. The interviews were done face-to-face with all subjects for 25 minutes. Parental permission was not needed for these minors because the interviews were done at the request of the criminal justice system while the youth were in custody. Court interview data were analyzed according to a rubric.

Correlation and descriptive statistics were used to analyze the data. Cohen's D was used to categorize a CSEC risk of low, medium, or high. Chi-square analysis with $p < .001$ demonstrated that females are more at risk than males for CSEC. Manova analysis ($p < .01$) demonstrated that high-risk youth report higher scores for depression on the Conners Comprehensive Behavior Rating Scales Self-Report (Conners, 2008) and higher attributions for sexual abuse on the Children's Attributions Perception Scale (Mannarino, 1994). These results suggest that use of the Sex Trafficking Assessment of Risk (STAR) tool successfully identified youth who are the most likely to be victims of CSEC. A noteworthy strength of the study was that care was taken to examine independent inter-rater reliability. A significant limitation of the study is that victim data was not collected regarding how many of the subjects were actually CSEC victims.

A content analysis study of youth under the age of 18 who were involved in commercial sex was done by Halter (2010) to answer two research questions: "Are police officers treating juveniles as victims of child sexual abuse, as delinquent offenders, or as both?" and "What youth characteristics and case factors influence police officers' views of the youth as a victim or an offender of prostitution?" The researcher used a content analysis method and mined data directly from police files of documented incidents of commercial sexual exploitation of children. The sample characteristics included data that were collected from incidents of 126 youth between the ages of 12 and 17 that occurred between January of 2000 and the date that the researcher extracted the data (between May and October of 2006). The binary gender distribution of the subjects was 125 females and one male. The ethnic distribution was 50% Caucasian, 41% African American, 7% Asian, and 2% Pacific Islander and other; 21% of the Caucasian group was Hispanic. Forty-four percent of the subjects resided in the police jurisdiction, another 44% resided

within the state, and only 11% were from out of state. The setting was six police agencies in major cities throughout the United States that were purposefully sampled because they had identified and were addressing a problem with CSEC. A sole researcher coded the data as she read the case files and double-checked the data to assure accuracy. Data that was recorded included how the police learned of the incident, the youths' level of cooperation with the police, knowledge of an exploiter by the police, and whether the youth had any prior criminal activity. The youths' age, residence, demeanor (crying or not crying), and ethnicity were also recorded. Reliability and validity of the instrument used to collect the data was not addressed. Bivariate relationships were analyzed using chi-square tests, and logistical regression analysis was applied to the variables to predict if police officers would find the youth culpable. The study found that police conceptualized 60% of the CSE youth as victims and 40% as offenders. Five important findings emerged from the study: Police categorized youth as victims when an exploiter was identified, as opposed to youth who were believed to be acting on their own. They viewed youth who were not seeking aid as "complicit", as opposed to those who were reported by an agency or were accompanied by an advocate. Youth who cooperated with the police were thought of as victims, as were those for whom the incident was thought to be their first offense, and youth who resided locally were viewed as victims more frequently than those who did not. One strength of the study was that files were carefully selected and ambiguous cases of commercial sex were eliminated. A limitation of the study is that a single researcher was responsible for the coding of the data.

Mitchell (2010) reports two related studies: The first was a survey mailed to law enforcement agencies in the United States to determine the number of juveniles who were arrested in 2005 for prostitution, and the second was a follow-

up survey by phone to gather details about the cases reported in the first survey. The first study used a survey design to answer the question of whether the agency had arrested or detained any minors (under the age of 18) for prostitution as well as other types of commercial sex acts in the 2005 calendar year. The survey method was accomplished by mailing a survey booklet to law enforcement agencies and asking them to complete the survey and return it by mail. The sample characteristics were not addressed in the study other than the fact that a variety of police agencies were studied. The setting was randomly selected law enforcement agencies from cities throughout the United States, chosen to capture commercial sex cases involving minors from a variety of jurisdictions. The data were collected by means of a mailed survey and were statistically weighted to estimate the annual number of domestic minor commercial sex cases. Any affirmative answers were followed by a request for the case number and name of a person who knew about the case. The findings of the first study were that 1,450 juveniles were arrested for prostitution-related offenses in 2005. A strength of the study is that it was the first to scientifically determine the number of juveniles who were arrested or detained for commercial sex. A limitation of the study design is that the data shows only the number of juveniles who were arrested or detained and is not an accurate representation of the number of juveniles who were involved in the commercial sex industry in 2005.

The second study described by Mitchell (2010) was also a survey design, but the method was to conduct telephone interviews to answer the four questions: “What are the demographic characteristics of juveniles involved in prostitution in all cases, those with third party exploiters, and solo cases?”, “What are the characteristics of exploiters?”, “Do the police view the juvenile as a delinquent or a victim?”, and “How do juvenile prostitution cases originate in the criminal

justice system?" Three interviewers performed the telephone survey after two days of instruction, asking questions that had been previously used in a pilot study with law enforcement. The data were analyzed with chi-square cross-tabulations to determine case characteristics of juveniles and exploiters, weighted descriptive statistics were used to explain how juvenile cases entered into the criminal justice system, and weighted chi-square cross-tabulations was also used to investigate law enforcement perception of the youth. The findings of this second study included that the majority of the youth were female, and the ages ranged from under 14 to 17. Fifty-nine percent of the youth were White, 36% were Black (which is disproportionate to the total population), and all were U.S. citizens and lived in either urban or suburban communities. Eighty-two percent of third-party exploiters were pimps, and 85% were male. Sixty-three percent of the cases entered the criminal justice system through police-initiated activity such as under-cover operations, and 37% through an external report such as a suspected child abuse report, missing children reports, or concerned family members or group homes. The results of the study suggested that youth who were female, dirty, appeared to be ill, or were age 14 or younger were more likely to be categorized as victims rather than as delinquents by police (Mitchell, 2010). One strength of the study is that quite a bit of attention was given to training the interviewers, including two days of training and "mock" interviews. A limitation may be that the study had a poor response rate, and the sample may not be representative of the entire United States.

Summary of the Literature

There is a gap in the literature demonstrating how to assist law enforcement officers to identify and report commercially sexually exploited children to child

welfare authorities. The articles in this literature review present information that can help to close some of the gaps in knowledge about CSEC, such as misconceptions of characteristics of victims and predictive factors for children who may be vulnerable to commercial sexual exploitation.

Other information in these articles illustrates some of the difficulties that police officers face when conducting interviews of suspects of child sexual abuse and how training on sexual abuse dynamics can change how police officers view sex crimes and render them less likely to blame victims. Training on the dynamics of sexual abuse can also increase the number of cases that police find worthy of investigating. Information on risk factors for CSEC, victim characteristics, the number of juveniles who were arrested for prostitution, and screening tools is important. The facts that were presented about police officer attitudes and methods are essential when developing educational tools and interventions for law enforcement. The information from this review of the literature can be applied toward future training and education for police officers.

This project is needed to fill a gap in the literature as one of the few experimental studies related to the identification of CSEC. There is no smartphone app for law enforcement officers in California to assist them with navigating sex crimes at this time, and no experiments have been conducted to test the efficacy of such an app. This project will evaluate an innovative method that law enforcement officers can use to screen for CSEC and assist them in reporting victims to child welfare authorities electronically. The data from this project will begin a conversation in the literature addressing creative and collaborative approaches to address CSEC. It is important that forensic nursing is represented in the development of this tool because sexual assault nurse examiners have valuable

insight and experience to contribute about the presentation of CSEC and how to collaborate once children have been identified.

CHAPTER 3: METHODOLOGY

An experimental method was used for this quantitative study. A sample of law enforcement officers was randomly assigned to either a control or an intervention group. Both groups completed a pre-test, and only the intervention group was given the smartphone application. Both groups completed a post-test, and the intervention group was asked to use the app during the test.

Sample Characteristics

The sample was random and was representative of the full-time, sworn police officers who work in an adjacent county in terms of age, gender, and race. Recruitment of participants included all shifts of law enforcement officers at five police departments in a county in California with a population of approximately 434,000. Each law enforcement agency signed an agreement to participate *(see Appendix E),* and each participant signed a consent form *(see Appendix D)* to take part in the survey.

Number of Participants

It is important to determine a feasible and adequate sample size before conducting research (Farrokhyar, 2013). G*Power a priori (Faul, 2007) was used to determine that a sample size of 128 is needed to generalize the ANOVA results to the general population with an 80% confidence level and a 5% margin of error. G*Power is a free software program that can be used to determine in advance the sample size needed for a study. One hundred eighteen participants were recruited, and 15 participants did not complete their surveys, resulting in a sample size of 103.

Recruitment of Participants

Recruitment of participants was achieved by scheduling the testing sessions during law enforcement shift roll-call meetings at five different police departments. Training officers for each police department were asked to explain to the sworn officers that participation in the project was voluntary, no one would be required to participate, and there would be no adverse consequences for any officer who declined to participate.

Efforts to Maximize Participation

The chief or training officer of each police department made the room and time available for officers to participate while they were on duty, but no one was required to do so. The criteria for inclusion was to be a sworn police officer employed by the agency, and the criterion for exclusion was the desire of the subject not to participate. The participants were at work, and they had no other assigned duties when they participated, with the exception of emergent calls. In addition, they were informed that refreshments would be served.

Comparison of the Sample with the Samples Examined by Other Researchers

A similar study by Darwinkle (2013) evaluated the effect of training on sex crime attitudes and decisions made by police officers. The study was quasi-experimental and used a pre-test and post-test design with two versions of the test. The results of the study supported the hypothesis that it was more likely for police to authorize filing criminal charges for reports of sexual assault and less likely that they would blame victims after participating in a training on the dynamics of sexual assault. This project is similar in terms of participants, design, and topic, but in order to improve the internal validity, randomization was applied to this sample.

Setting

The testing took place in a familiar room in the officers' respective agencies that is used for daily shift meetings.

Comparison to Other Research

The project is comparable to that of the research done by Darwinkle (2013) and Patrick (2015). Both researchers conducted a similar study: Darwinkle evaluated whether an educational program would increase the willingness of law enforcement officers to authorize filing criminal charges and diminish blaming victims, and Patrick evaluated the willingness of APNs to screen for CSEC before and after a web-based educational program. The Darwinkle (2013) study was conducted in Australia, which might differ from the setting of this project in terms of police culture and criminal law, and the Patrick (2015) study evaluated APNs rather than police officers.

Permissions and Institutional Review Board

Sampling was drawn from five different police agencies in the county, and surveys were conducted during two to three shifts at each agency. Each subject signed a consent form to take part in a human subject experiment *(see Appendix D)*. The project was approved by the CSU Fresno Institutional Review Board, and permission for participation was granted by all contributing law enforcement agencies prior to data collection.

Data Collection Method

Data Collected

Demographic data was collected from the participants regarding gender, race, experience, and age. The data from the pre-test demonstrated the subjects'

baseline knowledge of CSEC facts and their ability to apply knowledge about CSEC to a fictitious case study. The post-test collected the same data, and the intervention group used the app to assist them in answering the questions. A Likert scale was employed to measure the subjects' responses to using the app.

Development of the Smart Phone App and Questionnaire

The smartphone app was created in collaboration with an investigator from the Office of the District Attorney who had experience working with CSEC and other sex crimes. Other contributors included an adult survivor of CSEC, a social worker, a deputy district attorney, and a certified sexual assault counselor. The investigator was able to contribute valuable insight to the project in terms of the knowledge deficit of local law enforcement officers and experience in software development. The initial infrastructure for the app was based on the indicators that are outlined in the CSE-IT tool (West Coast Children's Center, 2017), which is a validated tool that is used by social workers. Training is required to use the CSE-IT tool because the answers are weighted and the final score determines the action that will be taken by Child Protective Services according to the local protocol. The tool on the app guides the user through a series of questions that must be answered in order to continue to the next screen. The indicators on the app are not weighted, and if the user answers yes to any question, the subsequent screen will be a list of steps that will include contacting child welfare authorities and a rape crisis advocate according to the local protocol. If the user answers no, the app will continue to display screens that query the user about more indicators. If all of the answers are no, the app will redirect the user to a resource list. The app provides a disclaimer for users to always follow their departments' policies and procedures.

The survey tool was developed in cooperation with the same investigator and included general questions about the definition of CSEC and a pertinent question about the change in the California law (SB 1322) that was implemented in January of 2017 that changed the status of a commercially sexually exploited child from criminal to victim. The tool also included a question about reporting forms and methods to child welfare services because accurate and efficient reporting is essential to the process of helping a victim of CSEC. The vignette that was chosen was a fictitious conglomerate of cases from a variety of sources. The scenario features a CSEC situation that involves a 13-year-old female child who lives at home, recently spent the night away from home without permission, has a source that is unknown to her mother providing with her with cell phones, and may be pregnant. A scenario such as this may be easily dismissed by mandated reporters and was thought to be important to encourage participants to consider subtle indicators of CSEC, such as expensive belongings, truancy, and unscheduled overnights without parental permission.

Instrument Reliability and Validity

No validated instruments were determined to exist for this project, so two versions of the survey were tested by administering them to a group of 66 law enforcement officers from an out-of-county agency prior to conducting the pre-test/post-test surveys for the project. The demographics of the participants in the norming group were similar to the demographics of the participants who contributed in the pre-test/post-test DNP project, with the majority of the officers reporting to be age 45 or under, similar male-to-female gender ratio, and similar years of experience in law enforcement.

The survey was divided into three sections: the first section requested demographic information, the second section was comprised of objective questions and answers about CSEC identification and reporting, and the third section presented a vignette and asked the subjects to indicate whether they believed there was a risk for CSEC and whether they were likely to enact the CSEC protocol. The two versions differed only in terms of the vignette. One version featured a homeless transgender youth, and the scenario given in the other version was a school-age female who lived at home. The Cronbach's alpha scores were 0.22 and 0.20. A lower reliability was expected due to a wide range of topics, and the version with higher reliability was chosen for the project.

How Data Were Collected

Randomization

The assignment to the intervention or control groups was randomized. To accomplish randomization, the participants used a "number off the room" counting technique, and each subject called out "one," "two," "three," etc., around the room and recorded their number on the survey on a designated line. All odd-numbered persons were assigned to the intervention group, and all even-numbered persons were assigned to the control group.

Distribution of the Questionnaires

The participants recorded demographic information such as age, race, gender, and years of experience before they began the pre-test, then they answered eight questions (true/false or multiple choice) about CSEC. In the second portion of the questionnaire, the participants read and responded to a vignette. They were asked three questions: if they had identified a concern for CSEC, if they believed

that a forensic exam should be done, and if they knew how to report to child welfare authorities after reading the vignette.

Extraneous variables such as testing effects, selection bias, and instrumentation must be considered. The act of completing a pre-test may influence post-test scores (Melnyk, 2015), so two versions of the tests, A and B, were used and differed in the order in which the questions were presented but not in content *(see Appendices A and B).* The intervention group received version A, and the control group received version B for the pre-test. The control group completed version A of the questionnaire for the post-test, and the intervention group completed version B. The intervention group was asked to use the app to assist them in completing the post-test, and the control group was not. The intervention group was also asked to rate the ease of use and helpfulness of the app on a Likert scale. All participants were requested not to share information about the questionnaires or the app with co-workers until all testing had been completed for each agency.

Data Collection Personnel

The questionnaires for each group were collected immediately after completion, assembled, and placed in an envelope. An experienced research assistant entered the data into SPSS for analysis, after which the paper surveys were destroyed. All electronic data is being kept in a password-protected program on a computer in a locked room for a period of one year after the completion of this project, after which time it will be destroyed.

Intervention

The intervention tested was the use of a smartphone app to assist with screening for and reporting CSEC. The app, *SART START (see Appendix C),* was

created in collaboration with an investigator who has experience as both a software developer and a sex crimes detective. The app was published by the DNP student. There is precedence for the use of an app as an electronic decision-making pathway for multidisciplinary teams. *Document It!* is an app that was developed by the National Family Justice Center Alliance for law enforcement officers, victims, and health professionals to evaluate and document strangulation (Techsafety.org, 2017).

The CSEC screening app uses questions that are based on a validated tool, the CSE-IT (West Coast Children's Center, 2017), with the knowledge of West Coast Children's Center. The CSE-IT tool is more detailed than the app, requires training to use, and is not available as a mobile application. This app should not be construed in any way as a replacement for the CSE-IT tool.

Summary

The commercial sexual exploitation of children is a serious public health issue. Law enforcement officers miss opportunities to identify and report victims of commercial sexual exploitation because of a gap in knowledge about CSEC characteristics and the mechanism for mandated reporting (Institute of Medicine and National Research Council, 2014). A review of the literature reveals no experimental studies that suggest how the knowledge gap in law enforcement officers may be addressed to identify and report victims of commercial sexual exploitation. This project evaluates the efficacy of a smartphone app that can be provided to law enforcement officers to assist them in screening and reporting suspected CSEC to child welfare authorities and lead to interdisciplinary collaboration with sexual assault nurse examiners, advocates, and Child Protective Services. Improvement in the recognition and reporting of CSEC could reduce the

accumulation of trauma and other health issues in this vulnerable population by removing them from exploiters and facilitating their receipt of needed services.

CHAPTER 4: RESULTS AND DISCUSSION

Demographics

Demographic information that was collected included age, years of experience in law enforcement, and gender.

Age

Age was categorized by five-year increments and then re-categorized into two categories of 45 years of age and under and over 45 years of age. The results were that 83.3% of the participants were age 45 or younger, and 16.7% of the participants were over the age of 45.

Years in Law Enforcement

Information pertaining to years of law enforcement experience was categorized by five-year time periods, and 32.4 % of participants reported working in law enforcement for five years or less, 17.6% reported 6 to 10 years of experience, 25.5% reported 11 to 15 years of experience, 11.8% reported 16 to 20 years of experience, and 12.7% reported over 20 years of experience.

Gender

Gender was surveyed in the categories of male, female, and other. The results were 89.3% of the participant reported their gender as male and 10.7% reported their gender as female. No participants reported their gender as other.

Inferential Results

This project attempted to answer three hypotheses. Inferential statistics were used to address the first two hypotheses, and a correlational test was used to answer the third. The first hypothesis—that there will be a significant

improvement in the scores between the pre-test and post-test for the intervention group and not for the control group—was analyzed with two paired samples *t*-tests *(see Table 1).* There was a significant improvement in score between the pre-test ($M = 6.22$, $SD = 1.19$) and post-test ($M = 7.23$, $SD = 1.18$) in the intervention group, $t(64) = 6.06$, $p < .001$. The control group had no significant improvement between the pre-test ($M = 6.32$, $SD = 0.99$) and post-test ($M = 6.47$, $SD = 1.18$), $t(37) = 1.06$, $p > .05$ *(see Figure 2).*

Table 1.

Pre-Test and Post-Test Score Differences for Intervention and Control Groups

	Pre-Test		Post-Test			
Groups	*M*	*SD*	*M*	*SD*	*t*	*p*
Intervention	6.22	1.19	7.23	1.18	6.06	.00*
Control	6.32	0.99	6.47	1.1	1.06	.30

Note. **p*-value is statistically significant at the .001 level.

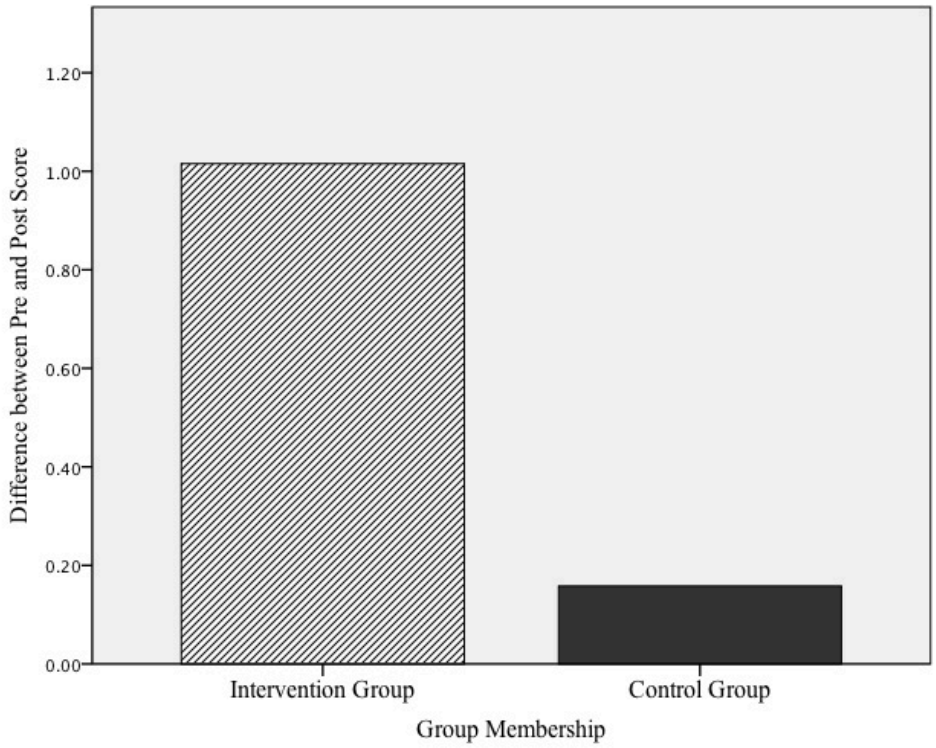

Figure 2. Bar graph display of improvement in score between intervention and control groups.

The second hypothesis—that within the intervention group there will be no difference in the change of score from pre-test to post-test between the groups according to gender, age, or years of experience—was analyzed with three one-way ANOVAs. This information is needed to determine if group membership in any of those categories is a factor in the effectiveness of using the app successfully. The results show that there is no statistically significant difference in score improvement between the groups of age, gender, or years of experience *(see Table 2)*. Equal variances can be assumed by a Levene's Test.

Table 2.

ANOVA Results for Difference in Score by Gender, Age, and Years of Experience

Variable	*df*	*F*	*p*
Age	1	1.59	.21
Gender	1	0.64	.43
Years of Experience	5	1.09	.38

The third hypothesis, that within the intervention group there will be no correlation between the measure of the usefulness of the app or the ease of use of the app and the score difference, was analyzed using Pearson's R. There was no significant correlation between either the perceived ease of use of the app and the score difference, $r = -.15$, $p > .05$, or the perceived usefulness of the app and the score difference, $r = -.04$, $p > .05$. The implication of these results is that all participants experienced an improvement in their post-test score from their pre-test score, and their results were not influenced by their perceptions of ease of use or usefulness of the app.

CHAPTER 5: DISCUSSION

Relationship of Outcomes to Research

The purpose of the project was to develop an app that could assist law enforcement officers in the identification of victims of CSEC and guide them through the steps to contact and collaborate with child welfare workers, victim advocates, and sexual assault forensic examiners, with the ultimate goal of connecting children with needed services.

The first hypothesis—that there will be a significant improvement in the scores between the pre-test and post-test for the intervention group and not for the control group—is supported. The second hypothesis—that within the intervention group there will be no difference in the change of score from pre-test to post-test between the groups according to gender, age, or years of experience—is supported. The third hypothesis—that within the intervention group there will be no correlation between the measure of the usefulness of the app or the ease of use of the app and the score difference—is supported. The implication of the results is that the participants who used the intervention improved their post-test score from their pre-test score and that their scores were not influenced by gender, age, years of experience in law enforcement or perceived ease of use or usefulness of the app.

Observations

The project was interesting and noteworthy in that it brought the attention of the topic to many interdisciplinary collaborators who work with CSEC in the health care, social services, and advocacy sectors in addition to law enforcement. The act of interacting with law enforcement officers in six jurisdictions during the project created an awareness for those officers about the topic. In addition, the

innovative and hands-on aspects of the app appealed to most of the participants and elicited interest in participation.

The topic of sexual abuse is emotionally difficult, and within every group of participants, a certain percentage will have experienced sexual abuse first-hand or know a friend or a family member who did. CSEC is a form of child sexual abuse, and the topic may be triggering or disturbing for some members of any group and may influence how decisions are made. Using an app may assist police officers to assess CSEC objectively. With the app, participants are able to analyze facts, screen for indicators, retrieve resources, and follow the electronic decision-making guidelines.

The outcome is encouraging in that the participants in the intervention group were able to find answers to survey questions quickly with very little orientation on how to do so. The ability to find facts and apply critical-thinking skills was statistically significant in the intervention group. There was no statistical significance between the change of pre-test/post-test scores and groups according to gender, age, or years of experience. The implications are that, despite societal views that older people (Singh-Manoux, 2012) and females (Ashcraft, 2016) do not have an aptitude for technology or that people who have worked in a position for a long time are resistant to change (Willis, 2015), the statistical analyses in this project show that there is no significant difference between these groups that affected their ability to use the app successfully. Finally, there was no significant correlation between the participants' perceived ease of use or usefulness of the app with their score improvement. In other words, participants who did not experience the app as easy to use or thought it was useful still experienced an improvement in score.

Theoretical Framework

The results of the project support the theoretical framework of the ecological model. The ecological model includes individual, relationship, community, and societal risk factors. Children do not generally become victims of commercial sex in the absence of one or more risk factors. They may be recruited at school, at home, in foster care, or on the internet. They may live in an environment of abuse, poverty, or homelessness where there is more risk. The CSEC tool on the SART START app guides the user through a series of questions that stem from risk factors that are congruent with the ecological model and directs first responders to collaborate with other disciplines so that the child's needs may be addressed on multiple levels.

Limitations

The instruments that were used to survey the participants were created with the knowledge that there would be little time to administer the pre-tests and post-tests. The time allotted for participation at the roll-call meetings was limited, and as a result, the instrument that was used was abridged, and only perfunctory instructions on navigating the app were given.

Efforts were made to avoid introducing bias or error into the results. The intervention and control groups were randomly selected, and the investigator gave the same instructions to each group. Even though participation was voluntary and law enforcement officers were informed that there would be no penalty if they declined to participate, it is possible that some participants contributed because they were seated with their peers.

Pre-test and post-test data may not truly represent the knowledge gap that was filled by the app because some of the questions were answered with a Likert scale rather than as true/false or multiple choice and could not be determined to be right or wrong. The instruments that were created were appropriate for the sample, but not all questions were appropriate for quantitative analysis.

G*Power a priori suggested that an optimum group size would be 128. This size group was not achieved, and there was also a discrepancy in group size between the control and intervention groups. Both the attrition and difference in size occurred because questionnaires that were incomplete were eliminated from the project. It is possible that these factors could have influenced the results.

Implications for Future Projects and/or Research

The next steps for improvement of this project would be to expand the survey tool used and to choose a sample of participants available for a time period of one hour or more. With a time period of at least one hour, it is likely that adequate instructions could be given on navigating the app, and there would be sufficient time to complete a more comprehensive test. A follow-up question might be directed in 6 months to the participating officers to ask if they have used the app. To assess if the app is as helpful in vivo as it was shown to be in the classroom setting would require a retrospective prevalence study of the number of CSEC youth who were identified in the past year and a comparison study of the number of victims who are identified over the next year by those agencies who are using the app.

Implications for Practice/Health Policy/Education

The significance of the findings is that an app may be used as a clinical decision-making pathway to identify victims of CSEC and collaborate with community partners to assist youth. The app was developed specifically for law enforcement first responders but could be easily adapted for use by health care professionals, educators, and other mandated reporters. A trauma-informed public health response could be augmented by interdisciplinary use of the app so that community partners would implement a shared approach to identification and response to CSEC. With improved awareness about CSEC in the community, victims could experience earlier intervention and receive health care and other services in a timely manner, thus mitigating cumulative trauma.

Conclusion

The purpose of this project was to create and evaluate an electronic decision-making tool to assist law enforcement officers to identify children who are victims of commercial sexual exploitation (CSEC), guide the officers in reporting to child welfare services, and facilitate collaboration with sexual assault forensic examiners and advocates. A smartphone app, *SART START*, was developed and used as an intervention in a randomized controlled study with a pre-test and post-test design. The results were statistically significant in that the test scores of the intervention group improved when they used the app. The intervention could be easily adapted for use by nurses, educators, and other mandated reporters. Child victims of commercial sex accrue trauma and are subjected to adverse health consequences daily. Distribution and implementation of the app to community partners could improve early identification of victims and free them from their web of exploitation.

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APPENDICES

APPENDIX A: CSEC SURVEY VERSION A

CSEC SURVEY

PART I

Your agency _____

Your number assigned today: (fill in the blank) _____

Your age: (circle one)
20-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65

Your gender: (circle one) M F Other

Your race: (circle one) Caucasian Black Asian Other

Are you Hispanic? (circle one) Yes No

Do you speak Spanish when you are working? (circle one) Yes No

Years of law enforcement experience: (circle one)
0-5 6-10 11-15 16-20 21-25 26-30

PART II

For each question, choose the most correct answer:

1. Commercial sexual exploitation of children is the exchange of money, goods, or services for sex acts by a minor. The payment may be made to the child or to someone else.
    a. True
    b. False

2. I have received training in the CSEC protocol.
    a. True
    b. False

3. After making a telephone report to CPS, which form must you submit within 36 hours?
    a. Suspected Child Sexual Abuse Report
    b. Suspected Child Abuse Report
    c. Cal-OES 2-930

4. Teen prostitutes who consent to commercial sex acts:
    a. Are crime victims.
    b. Are committing a crime.

5. A person who trafficks a minor may be charged with a crime:
    a. Only if they use force or fraud.
    b. Always if the victim is a minor.

6. Most victims of CSEC have been physically, emotionally, or sexually abused.
    a. True
    b. False

7. Which agency operates a hotline for human trafficking?
    a. Franciscan Workers
    b. Monterey County Rape Crisis Center
    c. Polaris Project

8. Experience in foster care or running away are risk factors for CSEC.
    a. True
    b. False

PART III

Jane Doe is 14 years old and lives in a middle-class neighborhood with her mother, her adult sister, and her sister's baby. She has been missing school frequently. Her mother states she has been taking away her phone as a consequence for missing school, but Doe keeps getting new ones. Other than the phones and missing school, her mother has not notice any changes in Doe's behavior and doesn't think she is using drugs or alcohol. Her mother called the department because Doe did not come home last night.

You locate Doe at school. She is dressed in jeans and a T-shirt and her hair is in a ponytail. She says she spent the night with "a friend" and gives a vague answer to why, then tells you she is fine and promises to go home after school. While you are talking to her, she runs out of the room and vomits outside. She confides that she thinks she might be pregnant.

1. Are you concerned about commercial sexual exploitation?
    a. Yes
    b. No

2. Your first action is to:
    a. Interview her.
    b. Call CPS and the Rape Crisis Advocate.
    c. Activate SART.

3. What concerns you?
    a. Her appearance
    b. Her living situation
    c. Her belongings
    d. All of these

4. How likely are you to open a case and activate the CSEC protocol?
    a. Very likely
    b. Likely
    c. Neutral
    d. Somewhat likely
    e. Unlikely

5. To what extent do you think this child is acting out and needs better parenting?
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Somewhat disagree
    e. Disagree

PART IV

1. Did you find the app helpful? (Circle one)

Very helpful Moderately helpful Neutral A little helpful Not at all helpful

2. How was using the app? (Circle one)

Hard to use Neutral Easy to use

3. Would you be more likely to carry and use an app or a written guide for sex crimes? (Circle one) An app A written guide

Thank you for your participation!

APPENDIX B: CSEC SURVEY VERSION B

CSEC SURVEY

PART I

Your agency _____

Your number assigned today: (fill in the blank) _____

Your age: (circle one)
20-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65

Your gender: (circle one) M F Other

Your race: (circle one) Caucasian Black Asian Other

Are you Hispanic? (circle one) Yes No

Do you speak Spanish when you are working? (circle one) Yes No

Years of law enforcement experience: (circle one)
0-5 6-10 11-15 16-20 21-25 26-30

For each question, choose the most correct answer:

PART II

Jane Doe is 14 years old and lives in a middle-class neighborhood with her mother, her adult sister, and her sister's baby. She has been missing school frequently. Her mother states she has been taking away her phone as a consequence for missing school, but Doe keeps getting new ones. Other than the phones and missing school, her mother has not noticed any changes in Doe's behavior and doesn't think she is using drugs or alcohol. Her mother called the department because Doe did not come home last night.

You locate Doe at school. She is dressed in jeans and a T-shirt and her hair is in a ponytail. She says she spent the night with "a friend" and gives a vague answer to why, then tells you she is fine and promises to go home after school. While you are talking to her, she runs out of the room and vomits outside. She confides that she thinks she might be pregnant.

1. Are you concerned about commercial sexual exploitation?
    a. Yes
    b. No

2. Your first action is to:
    a. Interview her.
    b. Call CPS and the Rape Crisis Advocate.
    c. Activate SART.

3. What concerns you?
    a. Her appearance
    b. Her living situation
    c. Her belongings
    d. All of these

4. How likely are you to open a case and activate the CSEC protocol?
    a. Very likely
    b. Likely
    c. Neutral
    d. Somewhat likely
    e. Unlikely

5. To what extent do you think this child is acting out and needs better parenting?
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Somewhat disagree
    e. Disagree

PART III

1. Commercial sexual exploitation of children is the exchange of money, goods, or services for sex acts by a minor. The payment may be made to the child or to someone else.
    a. True
    b. False

2. I have received training in the CSEC protocol.
    a. True
    b. False

3. After making a telephone report to CPS, which form must you submit within 36 hours?
    a. Suspected Child Sexual Abuse Report
    b. Suspected Child Abuse Report
    c. Cal-OES 2-930

4. Teen prostitutes who consent to commercial sex acts:
    a. Are crime victims.
    b. Are committing a crime.

5. A person who trafficks a minor may be charged with a crime:
    a. Only if they use force or fraud.
    b. Always if the victim is a minor.

6. Most victims of CSEC have been physically, emotionally, or sexually abused.
    a. True
    b. False

7. Which agency operates a hotline for human trafficking?
    a. Franciscan Workers
    b. Monterey County Rape Crisis Center
    c. Polaris Project

8. Experience in foster care or running away are risk factors for CSEC.
    a. True
    b. False

PART IV

1. Did you find the app helpful? (Circle one)

Very helpful Moderately helpful Neutral A little helpful Not at all helpful

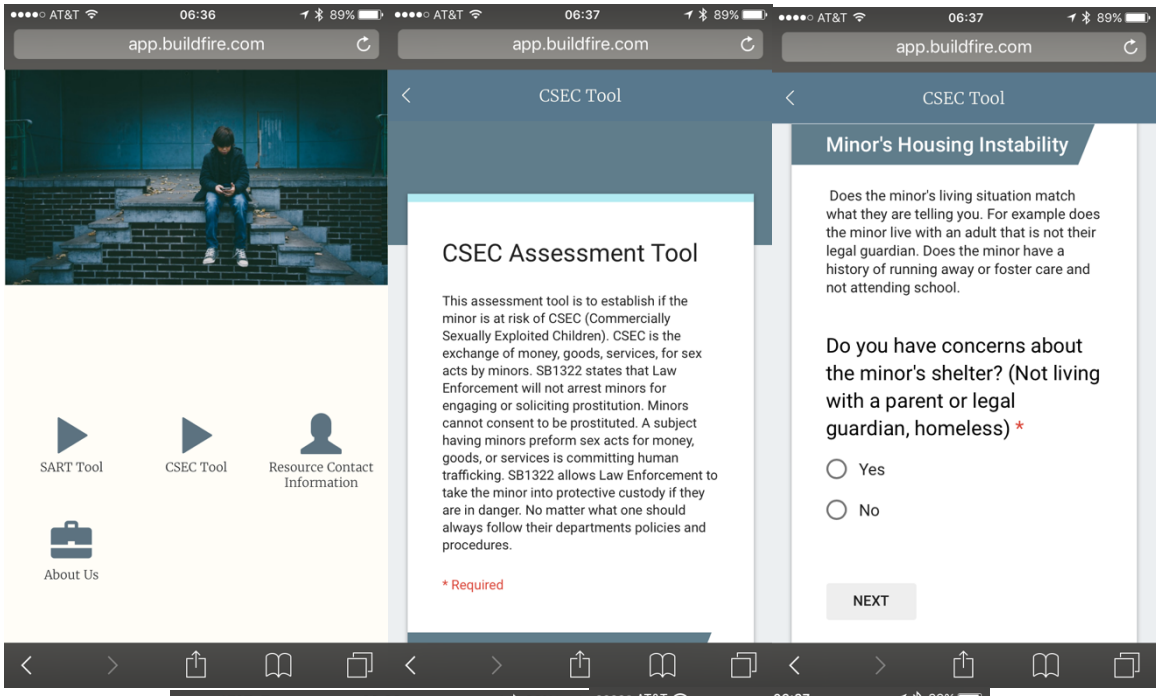
2. How was using the app? (Circle one)

Hard to use Neutral Easy to use

3. Would you be more likely to carry and use an app or a written guide for sex crimes? (Circle one) An app A written guide

Thank you for your participation!

APPENDIX C: SART START APP SCREEN SAMPLES


AT&T 06:36 89%
app.buildfire.com
SART Tool
CSEC Tool
Resource Contact Information
About Us
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app.buildfire.com
CSEC Tool
CSEC Assessment Tool
This assessment tool is to establish if the minor is at risk of CSEC (Commercially Sexually Exploited Children). CSEC is the exchange of money, goods, services, for sex acts by minors. SB1322 states that Law Enforcement will not arrest minors for engaging or soliciting prostitution. Minors cannot consent to be prostituted. A subject having minors preform sex acts for money, goods, or services is committing human trafficking. SB1322 allows Law Enforcement to take the minor into protective custody if they are in danger. No matter what one should always follow their departments policies and procedures.
* Required
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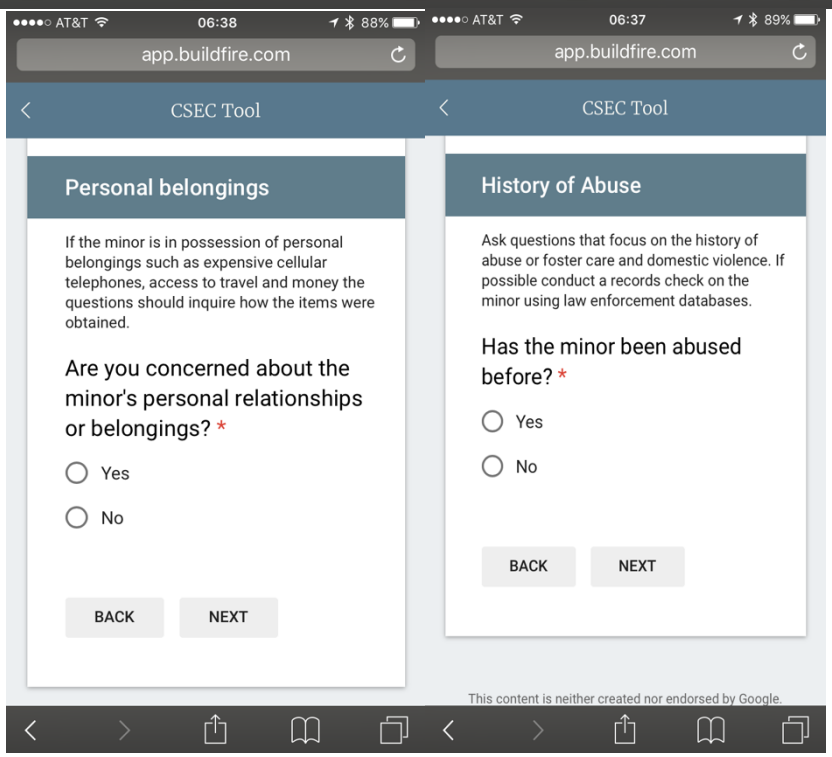
app.buildfire.com
CSEC Tool
Minor's Housing Instability
Does the minor's living situation match what they are telling you. For example does the minor live with an adult that is not their legal guardian. Does the minor have a history of running away or foster care and not attending school.
Do you have concerns about the minor's shelter? (Not living with a parent or legal guardian, homeless) *
Yes
No
NEXT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app.buildfire.com
CSEC Tool
Personal belongings
If the minor is in possession of personal belongings such as expensive cellular telephones, access to travel and money the questions should inquire how the items were obtained.
Are you concerned about the minor's personal relationships or belongings? *
Yes
No
BACK
NEXT
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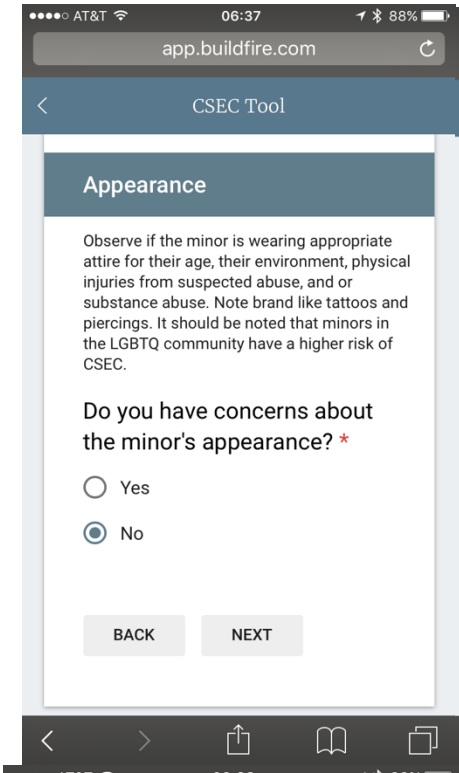
app.buildfire.com
CSEC Tool
History of Abuse
Ask questions that focus on the history of abuse or foster care and domestic violence. If possible conduct a records check on the minor using law enforcement databases.
Has the minor been abused before? *
Yes
No
BACK
NEXT
This content is neither created nor endorsed by Google.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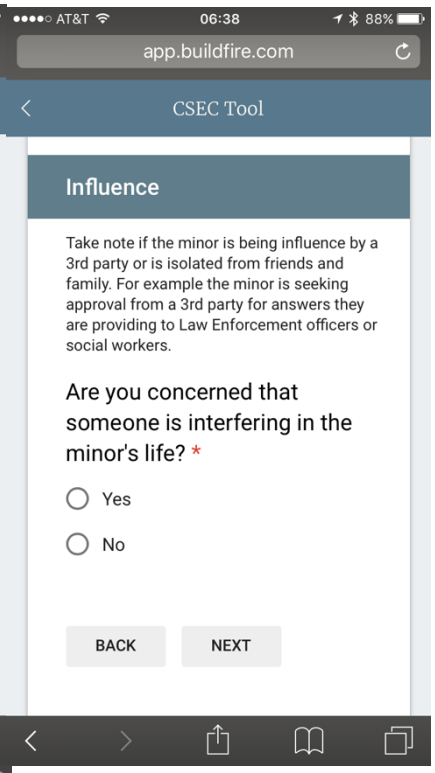
app.buildfire.com
CSEC Tool
Appearance
Observe if the minor is wearing appropriate attire for their age, their environment, physical injuries from suspected abuse, and or substance abuse. Note brand like tattoos and piercings. It should be noted that minors in the LGBTQ community have a higher risk of CSEC.
Do you have concerns about the minor's appearance? *
Yes
No
BACK
NEXT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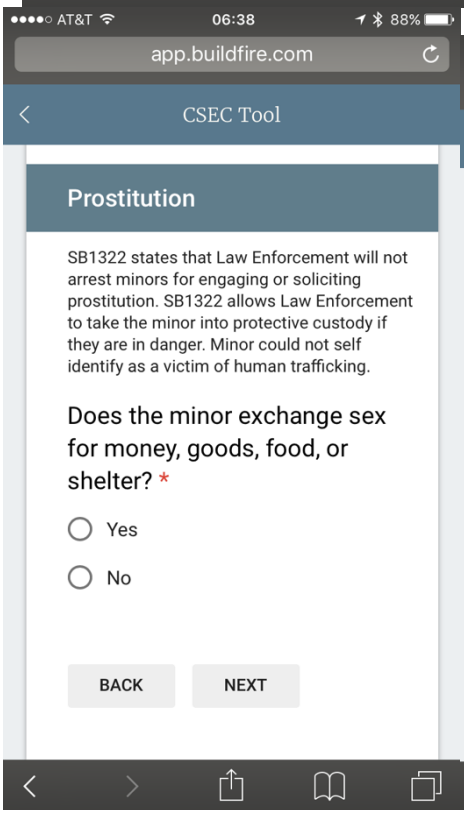
app.buildfire.com
CSEC Tool
Influence
Take note if the minor is being influence by a 3rd party or is isolated from friends and family. For example the minor is seeking approval from a 3rd party for answers they are providing to Law Enforcement officers or social workers.
Are you concerned that someone is interfering in the minor's life? *
Yes
No
BACK
NEXT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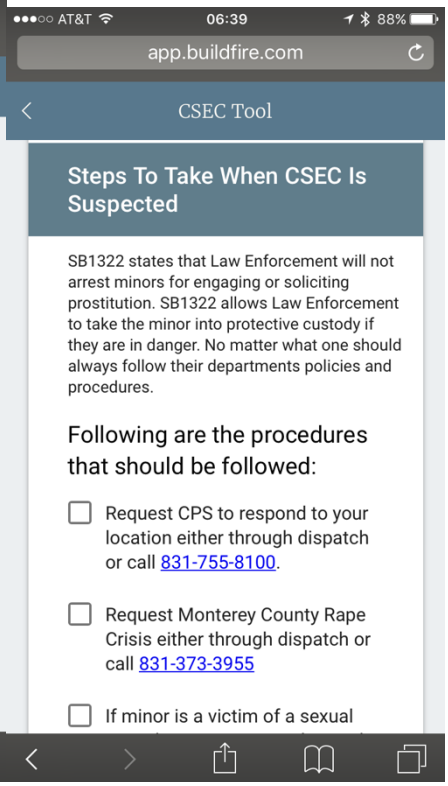
app.buildfire.com
CSEC Tool
Prostitution
SB1322 states that Law Enforcement will not arrest minors for engaging or soliciting prostitution. SB1322 allows Law Enforcement to take the minor into protective custody if they are in danger. Minor could not self identify as a victim of human trafficking.
Does the minor exchange sex for money, goods, food, or shelter? *
Yes
No
BACK
NEXT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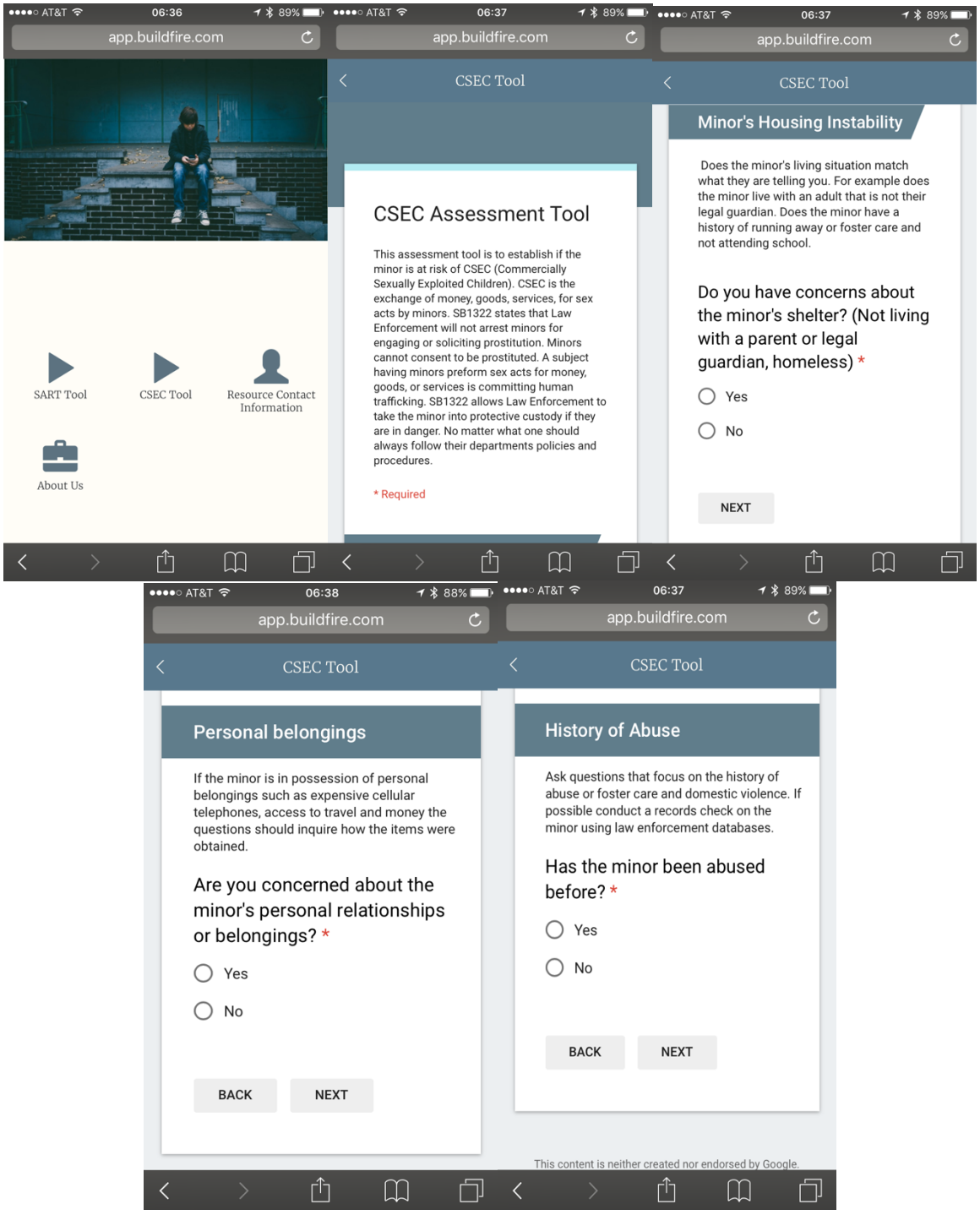
app.buildfire.com
CSEC Tool
Steps To Take When CSEC Is Suspected
SB1322 states that Law Enforcement will not arrest minors for engaging or soliciting prostitution. SB1322 allows Law Enforcement to take the minor into protective custody if they are in danger. No matter what one should always follow their departments policies and procedures.
Following are the procedures that should be followed:
Request CPS to respond to your location either through dispatch or call 831-755-8100.
Request Monterey County Rape Crisis either through dispatch or call 831-373-3955
If minor is a victim of a sexual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* Required
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No
NEXT
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BACK
NEXT
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No
BACK
NEXT
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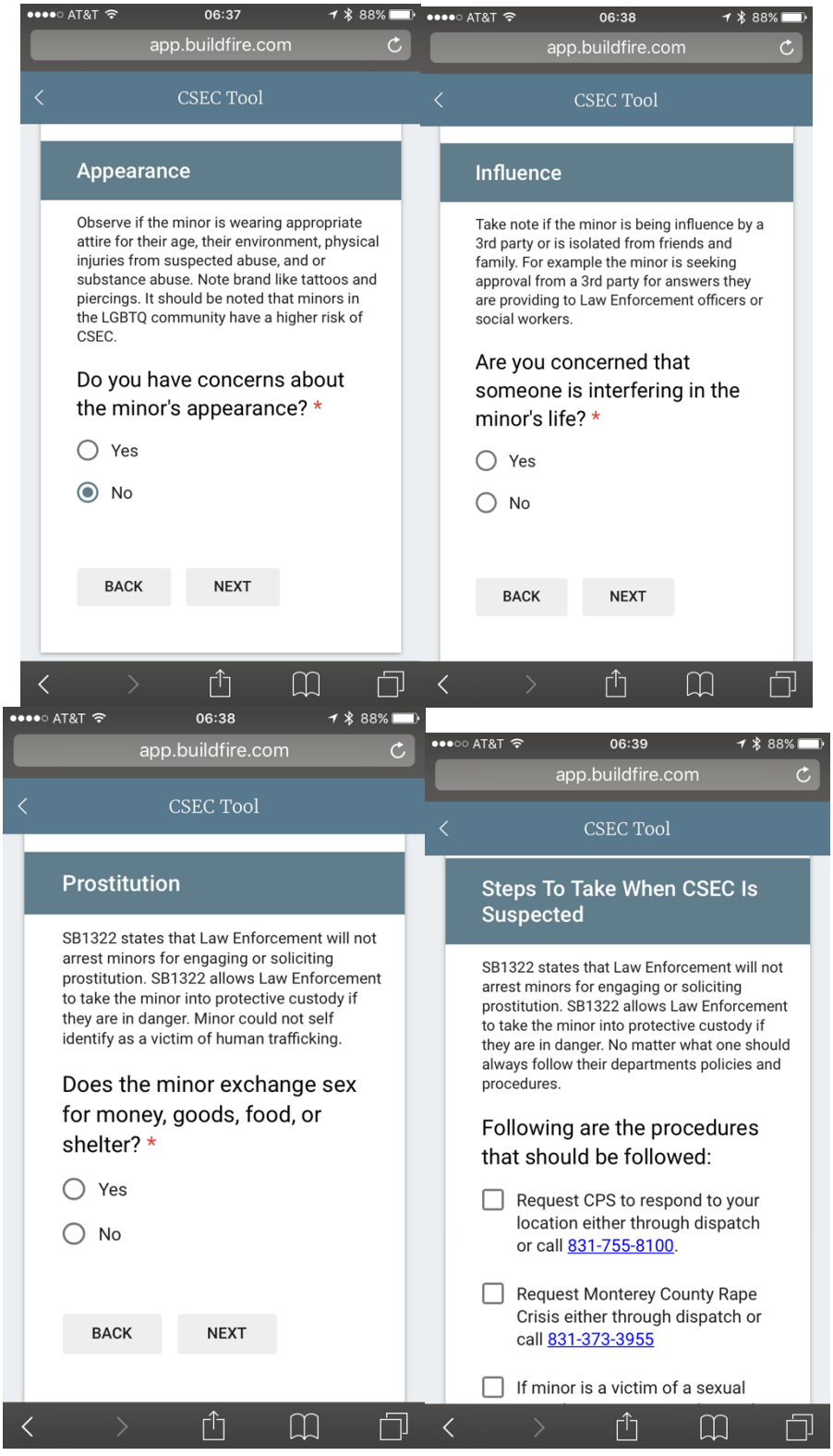
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CSEC Tool
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No
BACK
NEXT
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app.buildfire.com
CSEC Tool
Influence
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Are you concerned that someone is interfering in the minor's life? *
Yes
No
BACK
NEXT
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app.buildfire.com
CSEC Tool
Prostitution
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No
BACK
NEXT
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app.buildfire.com
CSEC Tool
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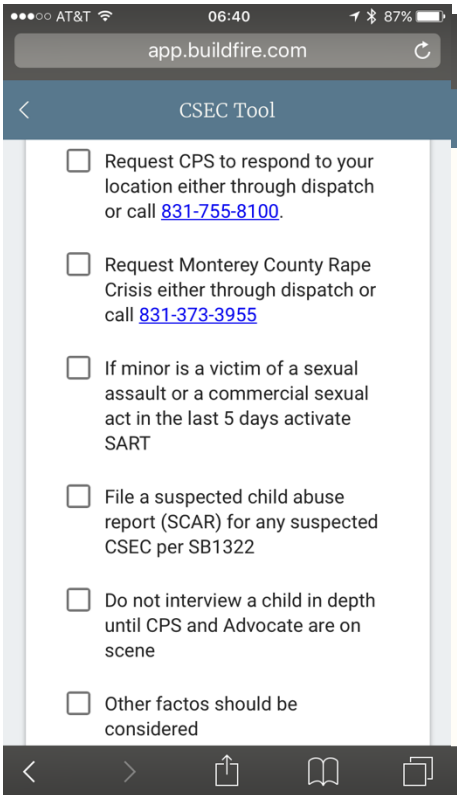
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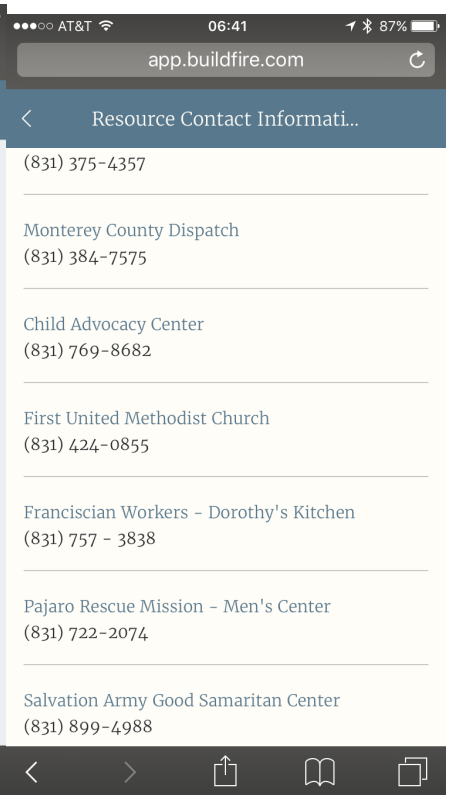
app.buildfire.com
CSEC Tool
Request CPS to respond to your location either through dispatch or call 831-755-8100.
Request Monterey County Rape Crisis either through dispatch or call 831-373-3955
If minor is a victim of a sexual assault or a commercial sexual act in the last 5 days activate SART
File a suspected child abuse report (SCAR) for any suspected CSEC per SB1322
Do not interview a child in depth until CPS and Advocate are on scene
Other factos should be considered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app.buildfire.com
Resource Contact Informati...
(831) 375-4357
Monterey County Dispatch
(831) 384-7575
Child Advocacy Center
(831) 769-8682
First United Methodist Church
(831) 424-0855
Franciscian Workers - Dorothy's Kitchen
(831) 757 - 3838
Pajaro Rescue Mission - Men's Center
(831) 722-2074
Salvation Army Good Samaritan Center
(831) 899-4988

APPENDIX D: CONSENT TO PARTICIPATE

CONSENT TO PARTICIPATE

You are invited to participate in a study conducted by the California State University Northern California Consortium. We hope to learn if using a smartphone application to assist law enforcement officers with recognizing commercially sexually exploited children (CSEC) is feasible. You were selected as a possible participant in this study because you are a sworn officer in Monterey County.

If you decide to participate, we will request that you take a short pre-test and post-test about CSEC. You will take two tests, one after the other. Each test will take about 10 minutes to complete. If you are randomly selected to use the app, it will be distributed before you take the post-test. If you are assigned to the control group, you will not use the app to take the test. The risks to taking the test are that you might have some test anxiety if you are prone to it, and the content is about sexual abuse and may be disturbing. The benefits to participating are that you may learn something about CSEC that can help you in your work. We cannot guarantee that you will receive any benefits from this study.

Any information that is obtained in connection with this study and can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. If you give us your permission by signing this document, we plan to disclose your consent to participate to CSU Fresno's Internal Review Board if it is requested. You will be assigned a number for testing, and your test scores will not be identified. You will not receive any compensation other than refreshments for your participation.

Your decision whether or not to participate will not prejudice your future relations with California State University Fresno or your employer. If you decide to participate you are free to withdraw your consent and to discontinue participation at any time without penalty. The Committee on the Protection of Human Subjects at California State University Fresno has reviewed and approved the present research.

If you have any questions, please ask us. If you have any additional questions later, Dr. Burmeister may be reached by email at gail.burmeister@csus.edu, and will be happy to answer them. Questions regarding the rights of research subjects may be directed to the Chair of CSU Fresno's Committee on the Protection of Human Subjects at (550) 278-4468. You will be given a copy of this form to keep.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Date_____ Participant _____

APPENDIX E: POLICE DEPARTMENT AUTHORIZATION LETTER

DATE

Dear CSU Fresno IRB Members,

After reviewing the proposed study, "Can Using a Smartphone Application Improve the Ability of Law Enforcement Officers to Recognize Commercially Sexually Exploited Children and Report them to Child Welfare Authorities?", presented by Sheree Goldman, DNP Student at CSU Northern California Consortium, I am granting permission for the study to be conducted at the Carmel Police Department.

I understand the purpose of the project is to determine if replacing the written guide that police officers use in the field with a smartphone app will improve their ability to identify Commercially Sexually Exploited Children (CSEC). The primary activity will be a written pre-test and post-test. All sworn officers from Carmel Police Department are eligible to participate, and no officers will be required to do so.

I understand that the surveys will occur for 20 to 30 minutes during or following roll-calls, or at a time that is agreed upon. It is likely that one or two shifts will be surveyed on the same day, and the remaining shift or shifts will be surveyed on a different day. I expect that this project will end no later than August 31, 2017.

I understand that Sheree Goldman will obtain consent from all law officers participating in the study. Sheree Goldman has agreed to provide a copy of the approved consent documents before she recruits participants from the department. Any hard data collected by Sheree Goldman will be kept confidential and will be locked in a secure location until it is entered in an electronic database, and then will be destroyed. The electronic data will be kept on a password-protected computer and destroyed in 5 years. Sheree Goldman has also agreed to provide to us a copy of the results of the research.

If the CSU Fresno Review Board has any concerns about the permission being granted by this letter, please contact me at the phone number &/or email address listed below.

Sincerely,

Chief of Police
CITY
ADDRESS
PHONE