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ATTITUDES TOWARDS COMMERCIAL SEXUAL EXPLOITATION: AN ECOLOGICAL SYSTEMS APPROACH

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ATTITUDES TOWARDS COMMERCIAL SEXUAL EXPLOITATION:

AN ECOLOGICAL SYSTEMS APPROACH

BY

RACHEL SMALL

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE

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OF

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Abstract

Sex trafficking is one of the largest and fastest-growing criminal enterprises in the world (Cecchet & Thoburn, 2014), and represents a systematic form of violence against women (Curva, 2012; Ekberg, 2004). Despite growing social awareness and scholarly interest in commercial sexual exploitation (CSE), it remains an underdeveloped research area, and little research has been conducted from a social-psychological standpoint. A comprehensive review of qualitative research was conducted utilizing ecological systems theory (Bronfenbrenner, 1992) as a framework for identifying major themes in the described experiences of survivors of CSE. In Study 1, emergent themes served as the basis for the development of a quantitative attitudinal measure. A two-step factor analytic approach was used to establish a three-factor measurement scale, Attitudes Towards Commercial Sexual Exploitation (ATCSE). In Study 2, an experimental design was implemented, using ATCSE sub-scales as primary dependent measures. Two manipulations (Sex-Buyer Violence and Sex-Seller Injury) were embedded in a written vignette depicting the exchange of sex for money. MANOVA was conducted using the three ATCSE sub-scales as dependent measures. A main effect was found for sex-buyer violence on participant endorsement of CSE, such that participants exposed to sex-buyer violence provided greater endorsement of CSE compared to participants in the control condition. One possible explanation is that exposure to violence towards women in the vignette had a priming or desensitizing effect on participants. Future research is needed to explore and test alternative presentations of CSE-related manipulations, in order to further develop and advance this important research area.

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Attitudes Towards Commercial Sexual Exploitation: An Ecological Systems Approach

Overview

Scholarly interest in commercial sexual exploitation is growing, yet the empirical literature on this topic is limited, and little research has been conducted to facilitate theoretical development in this area (Cecchet & Thoburn, 2014). The commercial sexual exploitation of women is a complex and multi-layered socio-legal problem; yet little is known about key social aspects of the problem, including forms of coercion and interpersonal violence among those involved in the sex trade (Verhoeven, Gestel, de Jong & Kleemans, 2015) and public attitudes towards commercial sexual exploitation (Houston-Kolnik, & Todd, 2014). The present line of research aims to apply ecological systems theory to the study of commercial sexual exploitation; and to provide a mechanism for advancement of social-attitudinal research on commercial sexual exploitation (CSE) by producing a quantitative attitudinal measure, Attitudes Towards Commercial Sexual Exploitation (ATCSE).

Human trafficking is defined as the exploitation of a person for the purpose of labor or a commercial sex act through the use of force, fraud, or coercion (Trafficking Victims Protection Act, 2000). However, minor victims cannot legally consent to sex, so the presence of force, fraud, or coercion must not be proven to meet the legal standard of sex trafficking of a minor. Commercial sexual exploitation is one of the largest and fastest-growing criminal enterprises in the world (Cecchet & Thoburn, 2014), and represents a systematic form of violence against women (Curva, 2012; Ekberg, 2004). Despite growing scholarly interest, the study of CSE remains an underdeveloped research area, and little research has been conducted from a social-psychological standpoint.

Examination of interpersonal violence in the sex trade (Verhoeven, et al., 2015), and public attitudes towards CSE (Houston-Kolnik, & Todd, 2014) have been identified as critical gaps in the extant literature. In order to address these gaps, two original studies were conducted to investigate social-interpersonal and attitudinal aspects of CSE using ecological systems theory (Bronfenbrenner, 1992) as a framework for understanding this complex and multi-layered social phenomenon. In the first study, an attitudinal measure was developed to assess attitudes toward commercial sexual exploitation. In the second study, an experimental design was utilized to test whether contextual factors influence these attitudes, using the newly developed scale from study 1 as a dependent measure.

Coercion and Interpersonal Violence in CSE

Interpersonal dynamics of power, coercion, and control are central to the issue of CSE. In the Netherlands, where prostitution is legalized and socially tolerated, there remains concern that legally working prostitutes are vulnerable to exploitation and victimization by pimps, and may therefore meet the force, fraud, or coercion criteria for sex trafficking (Verhoeven, Gestel, de Jong & Kleemans, 2015). Dutch researchers Verhoeven et al. (2015) sought to explore the relational violence and exploitation between pimps and prostitutes in Dutch trafficking cases. The data source for their study was 12 police investigations, all of which involved legal window prostitution in Amsterdam's famous red-light district.

Their study revealed intimate relationships between traffickers and victims, and the authors make a strong case for the close connection between domestic violence and sex trafficking. According to findings from their study, relationships between traffickers and victims initially manifest as consensual "boyfriend-girlfriend" relationships. The

trafficker or pimp will typically ply the victim with luxury items or expensive gifts, to keep her interest. The next step in the progression towards victimization is moving in together. As the relationship matures, the trafficker withdraws his gestures of generosity, and encourages the victim to “work” by selling sex. However, the trafficker has already established dominance over the victim, and therefore demands that money she earns selling sex be handed over to him; sometimes this occurs under the premise that he will “manage” their money and expenses, and sometimes debts are invented to keep the victim in servitude (Verhoeven et al., 2015).

The intimacy and lack of privacy associated with living together allows the trafficker to closely monitor and control every aspect of the victim’s life, including when and where she “works” and how she gets there each day. This documented dynamic of manipulation and control accelerates as the victim grows weaker and more powerless within the relationship. Identified tactics of control and intimidation, including physical violence, described by Verhoeven et al. (2015) clearly mirror those associated with domestic or intimate partner violence.

These patterns of coercion, dominance, and control are echoed in findings from other studies as well. Baldwin, Fehrenbacher, and Eisenman (2015) conducted semi-structured interviews with women who were trafficked into Los Angeles and forced into prostitution. Interviewees described a wide range of psychological and physical abuse, and reported that traffickers individualized or tailored their coercive techniques based upon the relationship with and perceived needs of each victim (Baldwin et al., 2015). Similarly, Cavalcante Carvalho Moreira and Ferreira de Souza Monteiro (2012) interviewed women who had participated in prostitution activities, and reported that

commercial sex is characterized by violence, control, humiliation, and degradation. Specifically, interviewees reported that men would pay more money to engage in violent and immoral sex acts. The authors emphasize that these findings are illustrative of broader gender-based power inequality.

Researchers Cecchet and Thoburn (2014) focused on the clinical aspects of trauma and resilience among survivors of child and adolescent sex trafficking. By conducting clinically focused interviews, Cecchet and Thoburn found that survivors had predisposing vulnerabilities to be recruited into the sex trade, such as an absent parent, lack of support system, and histories of child and/or sexual abuse. Survivors described an element of romance in the recruitment process, and expressed that susceptibility to recruitment was tied to a desire to be loved. Once involved, life in the sex trade is filled with constant threats of violence, and multiple sources of violence including pimps and men who buy sex. Additionally, the authors noted that all six women who participated in this study had at least one child with a pimp, making it difficult for them to completely disconnect from that world.

In their study of prostitution and trafficking of American Indian / Native Alaskan (AI/NA) women in Minnesota, Farley, Deer, Golding, Matthews, Lopez, Stark, and Hudon (2016) found that most women who participated in their study met the diagnostic criteria for Post Traumatic Stress Disorder (PTSD); and many presented with physical and psychological trauma symptoms including dissociation, impaired memory, headaches, and muscle pain. Farley et al. (2016) also noted a connection between colonization of native people and prostitution of AI/NA women, and expressed that this is an important intersection of gender and race.

In their study of HIV risk among formerly trafficked women, Collins, Goldenberg, Burke, Bojorquez-Chapela, Silverman, and Strathdee (2013) point out that chronic trauma exposure leads to negative health outcomes among trafficked women, including heightened risk for contracting HIV. A study of the experiences of sexually exploited children suggests that children who run away from home, oftentimes due to abuse, are at high risk for sexual exploitation, as well as contraction of sexually transmitted illnesses (Edinburgh, Pape-Blabolil, Harpin, and Saewyc, 2015). Researchers Muftic and Finn (2013) examined health outcomes among trafficked women in the United States, and found that child sexual abuse, domestic trafficking, and street prostitution were all associated with poor health outcomes. Additionally, trafficked women have little access to health care, and some have reported that their only access to healthcare was through incarceration (Ravi, Pfeiffer, Rosner and Shea, 2017).

Across various studies, it is clear that the described experiences of survivors of CSE are steeped in both physical violence and emotional abuse. Furthermore, survivors described early-life circumstances that may have predisposed them to involvement in CSE, including abusive relationships with men, financial instability, and substance abuse (Raymond & Hughes, 2002; Rodriguez Martinez, 2015). Once involved in CSE, women face chronic violence from both pimps and johns, and may also be threatened with violence if they refuse to sell sex (Cavalcante Carvalho Moreira & Ferreira de Souza Monteiro, 2012; Raymond & Hughes, 2002), leading to PTSD and other poor health outcomes (Collins et al., 2013; Farley et al., 2016; Muftic & Finn, 2013). Although qualitative research has begun to shed light on the experiences of survivors of CSE, not

many publications have addressed CSE from a social-psychological standpoint, and few have utilized psychological theory to better understand this problem.

Public Attitudes Towards Commercial Sexual Exploitation

Scholars have identified a critical gap in the literature surrounding examination of public or lay attitudes towards CSE. When it comes to matters of social justice, public opinion can often play a significant role in advancing policy and implementation of social programs. In the past several years there has been an observable increase in media coverage of CSE, as well as an increase in public awareness and anti-trafficking campaigns (Cunningham & Cromer, 2016). Despite this growing emphasis on social awareness, there is a distinct lack of empirical research on public attitudes towards CSE. In order to advance this research area, a versatile and reliable attitudinal measure is needed. Scale development in this area would not only facilitate measurement of important and timely social beliefs, but would allow scholars to examine which factors are likely to influence these beliefs.

In their study of prosocial attitudes and behaviors towards trafficked persons, Silver, Karakurt, and Boysen (2015) identified a connection between individual difference factors such as empathy and belief in a just world, and attitudes towards victims of commercial sexual exploitation (CSE). Specifically, Silver et al. (2015) found that participants had greater empathy for a female character, Ana, when she was identified as a trafficked person, compared to when she was described as a sex worker. Furthermore, path analysis demonstrated a significant direct effect of both belief in a just world and attitudes towards prostitution on empathic concern. These findings illustrate a meaningful relationship between belief in a just world, empathy, and attitudes towards

women involved in CSE. This relationship is important, given the positive relationship between empathic concern and prosocial behavior (Silver et al., 2015).

One plausible barrier to research advancement in this area is the lack of available research measures specific to CSE. In the study described above, Silver et al. (2015) were creative in using existing individual difference measures (i.e. measures of empathy and belief in a just world) and a CSE-related vignette to examine attitudes towards a female character, who was portrayed as either a trafficking victim or a sex worker. In this study, Silver et al. also included a measure called Attitudes Towards Prostitution Scale (ATPS; Sawyer & Metz, 2009). ATPS stands out as an early and preliminary attempt to quantify attitudes towards CSE using a questionnaire format. However, it is apparent by reading the survey items that the scale was developed from a viewpoint that all women involved in commercial sex are willing and free agents in the sex trade. This orientation significantly limits the versatility of ATPS, as well as its appropriateness for use across varying research contexts.

Although ATPS is clearly oriented towards the concept of consensual prostitution, growing scholarly interest in CSE has led to a handful of scale development publications focused on human trafficking and sexual exploitation. Most recently, the Perceptions, Knowledge, and Attitudes about Human Trafficking Questionnaire (PKA-HTQ; Nsonwu, Welch-Brewer, Heffron, Lemke, Busch-Armendariz, Sulley, Cook, Lewis, Watson, Moore & Li, 2017) was developed for use among social work students. Exploratory factor analysis was used to construct the PKA-HTQ, a 16-item scale with three factors: Self-Appraisal of Knowledge/Skill, Worldview, and Help Seeking Behaviors. Scale items such as “I know enough about human trafficking to serve human

trafficking victims” acknowledge the service role of the respondent; while items such as “human smuggling is synonymous with human trafficking” plainly test the respondent’s factual knowledge of trafficking. Overall, this measure is oriented towards the intersection of human trafficking and social service delivery, which somewhat limits the tool’s applicability outside of social work education and training (Nsonwu et al., 2017).

Another recent example is the Human Trafficking Myths Scale (HTMS, Cunningham & Cromer, 2016), which focuses specifically on false beliefs about human trafficking. The HTMS is both practically and theoretically relevant, as myths related to rape and child sexual abuse have been shown to influence legal outcomes, and to contribute to victim-blame (Cunningham & Cromer, 2016). However, by assessing the respondent’s awareness of “truth” versus “myth” surrounding human trafficking, the HTMS functionally serves as a knowledge test rather than a true attitudinal measure. With this in mind, the merits of the HTMS include its theoretical connection to rape myth and victim blame, as well as its appropriateness for assessing knowledge about human trafficking; but this tool does not address the critical need for a measure of public attitude.

In contrast, developers of the Sex Trafficking Attitudes Scale (STAS: Houston-Kolnik et al., 2016) attempted to measure CSE-related attitudes using a tripartite model of attitude assessment (i.e. examining the cognitive, behavioral, and affective aspects of attitudes). The authors considered several models, and ultimately put forward a 33-item scale with six dimensions (Houston-Kolnik et al., 2016). Similar to HTMS (Cunningham & Cromer, 2016), certain dimensions of the measure focus on measurement of knowledge (i.e. Knowledge about Sex Trafficking, and Awareness of Sex Trafficking).

Of the remaining four dimensions, Attitudes Toward Ability to Leave Sex Trafficking is essentially a measure of the respondent's belief in the myth that a trafficked person can leave the situation at any time. Although labeled as an *attitude*, it could be argued that one's degree of belief in this myth reflects one's degree of knowledge about trafficking.

The remaining three dimensions of the STAS (Houston-Kolnik et al., 2016) capture attitudes towards helping survivors, empathic reactions to the problem of sex trafficking, and perceived self-efficacy to reduce sex trafficking. These dimensions are the nearest resemblance of a CSE-related attitudinal measure that is currently available in the literature. However, they focus on certain aspects of the problem (i.e. willingness to help survivors) without capturing attitudes towards sex trafficking more broadly, as a social issue.

Each of the scale-development studies described above make a unique and important contribution to the literature, yet each has considerable limitations. With the exception of the ATPS, each of the measurement scales described were validated entirely on student populations; which raises a question regarding their appropriateness for use with other research samples. Additionally, there is a tendency across each measure to capture knowledge, rather than beliefs, values, or attitudes towards CSE; this likely relates to a degree of hesitance in the field to advance scientific inquiry beyond defining and illustrating what CSE is. In order to advance and expand research efforts in this area, a distinction must be drawn between measures of knowledge and measures of public attitude, and a reliable and valid attitudinal measure is needed. Furthermore, the measure which comes closest to capturing CSE-related attitudes (i.e. the Sex Trafficking Attitudes Scale, (Houston-Kolnik et al., 2016) is not theoretically based, and lacks a theoretically

derived factor structure. A central goal of the present research was to develop a theoretically based research measure which captures attitudes and beliefs towards CSE, and is also versatile enough to be utilized across diverse research contexts.

Theoretical Orientation

Scholars have identified a lack of theoretical development in the existing CSE literature. The limited theoretical work that is available is largely based in either feminist or socioeconomic theory, and little research to date has applied psychological theory to CSE as a social-interpersonal phenomenon. The present research draws upon work by Cecchet & Thoburn (2014) who utilized ecological systems theory (Bronfenbrenner, 1992) in their study of trauma and resilience among survivors of child and adolescent sex trafficking. Cecchet and Thoburn (2014) recognized that application of feminist or socioeconomic theories alone cannot account for the complex interplay of individual, interpersonal, social, and cultural factors that underlie commercial sexual exploitation.

Ecological systems theory is a developmental framework that was designed for explaining complex influences on human development across the lifespan. The versatile and flexible nature of this theory has led clinical and social researchers to apply it in contexts beyond human development. Ecological systems theory is broadly regarded as useful for understanding multiple layers of embedded contexts (Szapocznik & Kurtines, 1993). According to Bronfenbrenner's ecological systems theory, the individual represents a complex ecological system with five sub-systems. Please see Figure 1 (Appendix A) for a diagram depicting ecological systems theory).

The microsystem is the inner-most layer of an individual's ecology, and represents our immediate environment; the individuals and entities we interact with every

day (i.e. family members, school, job). The mesosystem is a connective layer that links individual structures within the microsystem. For example, if an individual's microsystem is made up of school, work, and family structures, the mesosystem would be connections among these structures, such as a neighborhood or community (Bronfenbrenner, 1992).

Next, the exosystem represents an individual's larger social system. An individual may not directly interact with structures at this level, but is still impacted by them (i.e. administrative agencies, government, or other high-level institutions). The macrosystem is the outermost layer of an individual's ecology, and is made up of values, cultural influences, and social rules or laws. This system is akin to an individual's worldview and is likely to affect all structures beneath it. Lastly, the chronosystem represents change over time across all other sub-systems (Bronfenbrenner, 1992).

In the present research, focus is narrowed to micro, exo, and macro systems. While meso and chrono systems are important elements of ecological systems theory, they are beyond the scope of the present scale development project. Specifically, the newly created scale is not expected to capture changes in attitudes over the course of development (i.e. the chronosystem); nor will it address linkages between micro-level structures (i.e. the meso-system). In a related publication (Cecchet & Thoburn, 2014), researchers also focused on several, but not all, aspects of ecological systems theory in their analysis of trauma and resilience among survivors of trafficking. Ecological systems theory provides a rich and complex structure, and it may not be practical (or feasible) to include all theoretical elements in any one study.

Applying elements of ecological systems theory to the study of CSE will allow for needed theoretical advancement in this area which incorporates factors including gender, race, culture, socio-economic status, and individual beliefs and values. This project advances past scale development efforts by developing a quantitative research measure which is both empirically and theoretically based, and is directly informed by the described experiences of survivors of CSE. Additionally, the language of the tool is intentionally neutral to promote its versatility across research applications. The development of Attitudes Towards Commercial Sexual Exploitation (ATCSE) represents a unique and meaningful contribution to the field, and provides applied researchers with a tool to advance the social-psychological and quantitative study of CSE.

Method and Procedure

The present line of research addresses critical gaps in the current literature in a series of two original studies. Prior to conducting Study 1, a comprehensive review of qualitative literature was conducted to identify major themes in the experiences of survivors of CSE in studies using interview data. Themes identified through this review were interpreted within the framework of ecological systems theory, and served as the basis for developing a set of attitudinal items measuring attitudes towards commercial sexual exploitation.

In Study 1, scale items are analyzed using quantitative methods with the aim of developing a meaningful and versatile research measure with favorable psychometric properties. Presently, a scarcity of available research measures has inhibited and possibly discouraged the involvement of quantitative scholars in the study of commercial sexual

exploitation (CSE), and Study 1 is intended to produce a research measure which will address this gap.

Study 2 utilizes an experimental factorial design to examine the extent to which salient contextual factors (i.e. sex-buyer violence and sex-seller injury) influence attitudes towards CSE, using the measure created in Study 1 as the primary dependent measure.

Review of Qualitative Literature

Prior to developing scale items, a comprehensive literature review was conducted to establish content validity. In order to learn about the experiences of CSE survivors, a set of studies was identified for review in which research interviews were conducted with women who survived CSE. Due to differing ideologies and orientations towards CSE as a feminist issue, survivors of CSE are referred to in the literature in various ways, including victims, trafficked women, prostituted women, prostitutes, and FSW's (Female Sex Workers). In the development of a new attitudinal measure, terms such as "trafficked" and "prostituted" were deliberately avoided to create a research measure which is agnostic to orientation, and is therefore versatile enough to be utilized across research contexts.

Interview data were chosen as the primary data source for establishing content validity in this area, due to the richness and depth of information gained through interview methods. The goal of the literature review was to synthesize qualitative findings from existing studies, and to incorporate these findings into the development of an item-pool of approximately 30 items. While this review is not exhaustive of all available literature, it is comprehensive in the sense that a point of content saturation (i.e.

when no additional or new information being added; Cecchet & Thoburn, 2014) was reached.

A total of 15 original studies were reviewed, as summarized in Table 1 (see Appendix B). Studies were identified using various academic databases (i.e. Ebsco, PsycArticles, Google Scholar) and were reviewed if 1) original interview data were collected, and 2) the interviewees were survivors of CSE.

Major themes. Ecological systems theory was drawn upon to provide a structure for interpreting and contextualizing themes in the experiences of CSE survivors. Identified themes were mapped onto the layers or sub-systems of ecological systems theory, and then translated into scale items. A summary of identified themes and generated scale items is presented in see Table 2 (see Appendix C). Presented below is a brief discussion of major themes, within the context of micro, exo, and macro sub-systems.

Micro-level themes. Across articles reviewed, a common theme that emerged was vulnerability to recruitment. Interviewees identified numerous factors that contributed to their recruitment into the sex trade, including a history of child and/or sexual abuse, prior or ongoing substance use, economic instability, lack of a positive male figure, and a desire to be loved. Another common theme was romantic or intimate relationships with pimps or traffickers. Interviewees often described that their husband, boyfriend, or intimate partner was responsible for their involvement in the sex trade. Furthermore, men in these roles manipulated intimacy and romance to create an expectation that women must sell sex to generate income.

Interviewees also described chronic exposure to violence and trauma, and the use of psychological coercion to keep them involved in the sex trade. Lastly, interviewees described a wide range of ailments – both physical and psychological. Poor health outcomes, such as PTSD, broken bones, infection, and transmission of HIV, are associated with the ongoing trauma and stress of CSE.

Exo-level themes. Interviewees identified lack of economic opportunity as a larger social force which drove them towards selling sex, whether directly or indirectly. Interviewees also described an inability to access health care while in the sex trade. This was due to various reasons including pimps and traffickers refusing or prohibiting care, as well as fear of the stigma and shame expected from healthcare providers. Interviewees described psychological coercion in the form of isolation, deprivation, and sometimes brainwashing. These tactics can make it almost impossible for victims to advocate for themselves or their health needs. Overall, interviewees described a clear lack of community services and supports. Interviewees commonly described a fear of police, and many had been harassed or raped by law enforcement. This illustrates the theme, failure of law enforcement to protect CSE victims.

Macro-level themes. Across articles reviewed, interviewees described a great deal of stigma and shame surrounding their victimization. This theme was present across contexts including family, healthcare, social service, police, and society at large. Another theme that emerged was the distinct gender-based power differential that underlies the entire sex trade. This power imbalance manifests as control and abuse of women, gender-based violence, and punishment for asserting needs or setting limits. Interviewees

described that men would pay more to engage in violent sex, and that customers routinely test the limits of what a woman will tolerate or endure.

Lastly, many interviewees believed that if they did not comply with the demands of pimps or customers, that they would be arrested, deported, or face other legal consequences. Under these circumstances, the authority of the law is conflated with male power, and trafficked women are taught to fear the law just as they fear their traffickers.

Study 1: Quantitative Scale Validation

Sample. For Study 1, data for scale validation was collected online using SurveyMonkey. All 35 scale items were administered online to a sample of 544 individuals, comprised of 233 MTurk users and 311 undergraduate students at a Northeastern university. Once data collection was complete, a total of 10 entirely blank responses were omitted, yielding an adjusted sample size of 534.

Measures. Participants completed all research measures online; including demographic items, a subscale of the Interpersonal Reactivity Index (Davis, 1980), the Global Belief in a Just World scale (GBJWS; Lipkus, 1991), and three available research measures related to CSE (i.e. Attitudes Towards Prostitution Scale (Sawyer & Metz, 2009), Human Trafficking Myths Scale (Cunningham & Cromer, 2016), and the first three sub-scales of the Sex Trafficking Attitudes Scale (Houston-Kolnik, Todd, & Wilson, 2016). A summary of information about included research measures is presented in Table 3 (see Appendix D).

Procedure. Participation took place online, using Survey Monkey software. Participants were asked to provide electronic informed consent (see Appendix E), and then completed demographic items (see Appendix F), ATCSE scale items (see Appendix

G), and all attitudinal measures listed above (see Appendices H-L). MTurk users received monetary compensation for their participation in the amount of \$1.00. Undergraduate students may have received extra credit points for participating, at the discretion of their course instructors.

Study 1 Results

Sample Demographics

The full sample ($n = 534$) was a mix of Mechanical Turk users ($n = 228$) and undergraduate students at a New England university ($n = 306$). With regards to gender, 45.7% ($n = 243$) of participants identified as Male, 53.8% ($n = 286$) identified as Female, and .5% ($n = 3$) identified as Transgender. A majority of participants ($n = 297$, 55.8%) fell within the age range (18-21), with remaining participants fairly evenly distributed among the age groups 22-25 ($n = 55$, 10.3%), 26-29 ($n = 64$, 12%), 30-34 ($n = 36$, 6.8%), 35-39 ($n = 32$, 6%), and 40 or Older ($n = 48$, 9%). Most participants ($n = 475$, 90%) responded “Yes” to the question, “Are you a citizen of the United States”, and 53 participants (10%) responded “No”; six participants declined to respond to this item.

Participants were asked to identify their ethnicity and race. Approximately 14% of respondents ($n = 77$) identified as Hispanic or Latino/a/x. With regards to race, 70.7% of respondents ($n = 377$) identified as White or Caucasian, 6.8% ($n = 36$) identified as Black or African American, 12.9% ($n = 69$) identified as Asian or Asian American, .6% ($n = 3$) identified as Native American or Pacific Islander, 4.3% ($n = 23$) identified as Multiracial, and 4.7% ($n = 25$) selected Other.

Participants were asked, “What is the highest level of education you have completed?” A majority of participants ($n = 227$, 42.7%) responded “Some College”,

followed by “High School Diploma or GED” (n = 125, 23.5%), “Bachelor’s Degree” (n = 123, 23.1%), “Associates Degree” (n = 29, 5.5%), “Graduate Degree” (n = 23, 4.3%), and “Some High School” (n = 5, .9%).

Participants were asked, “How do you identify with regards to political orientation?” Responses were fairly evenly distributed across the response options “Very Liberal” (n = 127, 23.8%), “Somewhat Liberal” (n = 121, 22.7%), “Somewhat Conservative” (n = 102, 19.1%), and “Unsure / Don’t Know” (n = 109, 20.4%). A small portion of respondents (n = 50, 9.4%) selected either “Very Conservative”, or “Other” (n = 25, 4.7%).

Prior to conducting a two-step factor analytic scale validation procedure (i.e. Exploratory Factor Analysis followed by Confirmatory Factor Analysis) the data set was split into two unique sub-samples. A random sample of 200 participants was extracted for Exploratory Factor Analysis (EFA), and the remaining sub-sample of 334 participants was retained for Confirmatory Factor Analysis (CFA). For a break-down of participant demographics by sub-sample, please see Table 4 (see Appendix M). Additionally, approximately half of items were directionally recoded prior to analysis; these items are denoted by an asterisk (*). This was done in order to ensure that a high rating reflected consistent endorsement of the underlying construct.

EFA

Prior to conducting exploratory factor analysis (EFA), two tests were conducted to assess suitability for factor extraction: The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s test of sphericity. KMO was .92, and Bartlett’s test was significant ($p < .001$), indicating excellent suitability of the data for factor analytic

procedures. Among all 35 scale items, inter-item correlations ranged from $r = .04$ to $r = .86$.

Factor extraction was conducted using Principle Axis Factoring (PAF) with Oblimin rotation; based on the theoretical assumption that model variables are not entirely orthogonal. RMSEA was .071 [.059, .072, 90% CI] indicating good model fit, and the total variance in the items accounted for by the factors was 55%. A scree plot was examined and possible structures ranged from 1- to 5-factor models. Parallel analysis indicated a three-factor solution, which aligns with theoretically-driven predictions about the factor structure of the ATCSE scale.

Although EFA findings do align with a three-factor model, item loadings suggest a considerably different composition of sub-scales than was proposed. A brief discussion of the process used to establish and re-conceptualize each factor is presented below. For a summary table of item loadings by factor please see Table 5 (Appendix N).

Factor Construction. Initially, all items with loadings of $|.30|$ or higher were retained. Only one scale item (item 24, *“Pornography and stripping are fundamentally different from selling sex”*) was omitted based on this criteria, resulting in an item pool of 34 items. Among the 34 retained items, fewer than half loaded at $|.30|$ or higher on the predicted factor; while more than half loaded at $|.30|$ or higher on an unanticipated factor.

Two items had complex loadings. Item 20 (*“We need more services and agencies to help women leave the sex trade”*) had loadings of .37 on Factor 2, and .43 on Factor 3, respectively. Similarly, item 31 (*“There is nothing wrong with commodifying women’s bodies”*) had loadings of .31 on Factor 2, and .33 on Factor 3. These complex loadings were resolved by raising the overall inclusion criterion from $|.30|$ to $|.40|$. By raising the

inclusion threshold, item 20 was retained on Factor 3, and item 31 was dropped altogether, resulting in an adjusted set of 33 items.

The remaining 33 items were then grouped according to the factor structure identified through the EFA procedure. Factors 1, 2, and 3 each contained a total of 16, 8 and 9 items, respectively. Within each identified factor, the highest-loading items were examined with regards to item content and meaning, to establish a conceptual core or foundation for further developing each factor.

Items were then examined individually, in a descending order determined by their loading values. Each item was considered with regards to empirical criteria (i.e. factor loadings) as well as theoretical or conceptual fit with other items within the factor. Through this process, three sub-scales were created: *Power and Control*, *Social Values*, and *Health and Risk*. Although this structure is not identical to the proposed factor-structure, these three factors represent unique and distinct components of ATCSE.

Factor 1, *Power and Control*, measures endorsement of gender-based power differentials that exist in our society. Imbalances in social and psychological power are inherent to CSE, therefore one cannot endorse CSE without also endorsing structural gender-based inequalities. Retained items such as “*It is okay for a man to control most aspects of a woman’s life*” and “*Women should accept that men have a higher social status than they do*” are illustrative of gender-based power inequality. In contrast, items such as “*Selling sex is a good option for someone who has run away from home*” and “*Selling sex is the best option for people from poor areas*” have more to do with economic instability and did not conceptually align with Power and Control, and were not

retained in this factor. A total of six items did not meet either empirical or theoretical criteria for inclusion, resulting in a total of 10 items for Factor 1, *Power and Control*.

Factor 2, *Social Values*, measures personal beliefs related to CSE. Endorsement of items within this factor reflects social tolerance of CSE, and affiliation with social norms surrounding CSE. In order to prevent or reduce reactivity surrounding presentation of somewhat sexually explicit language, some items were phrased in reverse, and were later re-coded such that higher scores reflect greater endorsement of CSE. Items such as “*If I could, I would vote to end the sex trade*” and “*Boys and young men should be taught from an early age that it is wrong to buy sex*” exemplify retained items which, after re-coding, reflect personal tolerance – or lack of tolerance – for CSE. This factor started out with eight items, none of which demonstrated a clear lack of fit on the basis of content or meaning. However, two items, “*As a community, we need to do more to prevent people from selling sex*” and “*If my partner bought or sold sex, I would end the relationship*” had the two lowest loadings within factor 2 (.41 and .43, respectively), and were conceptually similar to other items with much higher factor loadings (i.e. .71 and .79, respectively). In consideration of both theory and empirical evidence, these two items were dropped, resulting in a set of six items for Factor 2, *Social Values*.

Factor 3, *Health and Risk*, reflects attitudes towards CSE-related health issues and behaviors. As discussed previously, some items were phrased such that they required re-coding. After re-coding, higher ratings on items within this sub-scale represent higher tolerance of health risk related to CSE. In this context, health risk is not limited to risk of illness, but also captures risk of entry into the sex trade, and risk of negative outcomes associated with exposure to CSE. Items such as “*A man does not have the right to*

demand sex without a condom” and “*If selling sex is negatively impacting an individual’s health, they should try to stop*” are examples of items which were retained, and which required re-coding. These items represent the essence of the *Health and Risk* sub-scale, in that they capture attitudes towards the health-behavior component of CSE.

As evidenced by a substantial literature base, fields of nursing, medicine, and social work have emphasized the risk of negative health outcomes among trafficked persons, as well as among individuals exposed to the sex trade more broadly. Therefore, it is not surprising that *Health and Risk* emerged as a focal sub-construct of ATCSE. This factor initially contained a total of nine items, but two items did not meet either empirical or theoretical grounds for inclusion, and were dropped.

Through this process, a 23-item scale was composed, with three sub-scales: *Power and Control*, *Social Values*, and *Health and Risk*. For more information on the reason for retaining or dropping each item, please see Table 5 (Appendix N). The three identified factors, Power and Control, Social Values, and Health and Risk, must be considered within the framework of ecological systems theory (Bronfenbrenner, 1992). Each identified factor is conceptually distinct from, yet peripherally related to the other factors. When attempting to interpret complex social phenomena, ecological systems theory can help to facilitate a meaningful and organized method of disassembling these layers (Bronfenbrenner, 1992, Szapocznik & Kurtines, 1993). In the present study, the focus was limited to three layers or sub-systems of the larger theory: micro, exo, and macro-systems.

On one hand, all three factors contain items which are phrased in such a way that more than one sub-system is referenced. In a literal sense, our micro-systems (i.e. day to

day interactions) and macro-systems (i.e. worldview, beliefs and values) cannot be neatly separated. Therefore, it may not be helpful to think of the three factors as mapping directly onto the three sub-systems in terms of their content. Instead, the three factors should be considered in terms of their specificity.

Using a bottom-up approach, *Power and Control* measures the broadest or most nebulous aspect of ATCSE. Gender-based power differentials are not just intangible, but they are pervasively interwoven into our cultural values and social norms. In other words, one cannot know that something is wrong with CSE without acknowledging that gender-based power differentials exist (and that they, too, are a problem). Next, *Social Values* captures attitudes and beliefs that are also intangible but which reference specific social structures and entities (i.e. *As a society, we should invest more money and resources to abolish the sex trade*). While *Social Values* is still a broad concept, it is more specific than *Power and Control* because it makes direct reference to social institutions and allocation of resources. Lastly, *Health and Risk* measures the most tangible and most specific element of ATCSE, by focusing on CSE-related health behaviors and outcomes, rather than on social values or gender inequality. By considering the specificity of each factor, rather than the meaning of each factor, the three identified factors can be more congruously mapped onto the Macro (Power and Control), Exo (Social Values) and Micro (Health and Risk) sub-systems.

CFA

Confirmatory Factor Analysis (CFA) was conducted on a separate participant sample (n = 334) to validate the new factorial composition of ATCSE, which is mutually informed by the EFA results and ecological systems theory.

Multiples indices of model fit were examined, including comparative fit index (CFI; Bentler, 1990) with preferred values of .90 or more, and Root Mean Square Error Approximation (RMSEA; Steiger & Lind, 1980) with preferred values of .10 or less. CFI was equal to .94, and RMSEA was equal to .06, indicating acceptable model fit. A Chi-square test was conducted, and was significant ($p < .001$), although it must be noted that large sample sizes increase statistical power and therefore increase the likelihood of a significant p value (Shmueli, Lin, & Lucas, 2013). In light of this, and other positive evidence of model fit, the significant Chi square test is not a major concern. McDonald's Omega (McDonald, 1999) was calculated as an index of model reliability; McDonald's Omega was equal to .933, indicating excellent scale reliability. McDonald's Omega (McDonald, 1999) was also calculated for each subscale, and all three subscales were found to have adequate internal reliability (Power and Control: .96, Social Values: .88, and Health and Risk: .85).

In order to further evaluate model fit, the model was iteratively compared against an orthogonal model (i.e. factor correlations fixed at zero), and a model where factor correlations are fixed at 1.0, indicating a single factor (Danner, Blasius, Breyer, Eifler, Menold, Paulhus, Rammstedt, Roberts, Schmitt & Ziegler, 2016). Model fit for both comparison models (i.e. orthogonal and fixed at 1.0) was evaluated using CFI and RMSEA as fit indices. For the orthogonal model, CFI = .91, and RMSEA = .08. For the model with factors correlated at 1.0, CFI = .94, and RMSEA = .07. By these estimates, both comparison models demonstrated acceptable model fit; but neither model clearly out-performed the freely correlated model. To determine the model of best fit, a Chi

Square Difference Test was conducted (Schermelleh-Engel, Moosbrugger & Muller, 2003; Werner & Schermelleh-Engel, 2010).

Two model comparisons (i.e. Model 1 vs. Models 2 and 3, respectively) were tested in an iterative manner. Models 2 and 3 had identical degrees of freedom ($df = 230$), and were therefore not compared. Descriptive information and findings from these tests are presented in Table 7 (see Appendix P). For all three model comparisons, the difference in Chi square values exceeded the critical Chi square value, indicating that all models significantly differed from one another (Werner & Schermelleh-Engel, 2010). In light of these findings, theory must be considered to select the most appropriate model.

According to ecological systems theory, the three factors represent embedded layers of a larger whole (Bronfenbrenner, 1992), which have the potential to interact and influence one another. Consequently, the orthogonal model can be ruled out, as it is unlikely that the three factors would be entirely uncorrelated and therefore unrelated. In contrast, a single-factor model might be better aligned to ecological systems theory; and it must be considered whether a single-factor model is a more appropriate solution. However, Model 1 (freely correlated, $X^2 = 496.59$) demonstrated a significantly lower chi square value when compared against Model 3 (factor correlations fixed at 1.0, $X^2 = 535.29$), which lends support to the factorial validity of the three-factor model in this study (Schermelleh-Engel, et al., 2003).

Examining Construct Validity

Construct validity was examined by correlating ATCSE sub-scale scores (i.e. Factors 1 through 3) with the sub-scale and/or total scores of relevant attitudinal measures. For this portion of the analysis, the entire data set ($n = 534$) was considered,

although a small portion of participants chose to leave certain scales blank, resulting in a range of sample sizes across measures, ranging from $n = 456$ to $n = 508$. Some measures were included to assess convergent construct validity, while others were anticipated to assess divergent construct validity, as is summarized in Table 3 (see Appendix D).

Certain measures were selected because they measure constructs that have some theoretical relationship to ATCSE (i.e., measures of empathic concern, and Global Belief in a Just World) while other measures were included because they hold the greatest similarity to ATCSE of currently available research measures (i.e. Attitudes Towards Prostitution Scale (ATPS), Human Trafficking Myths Scale (HTMS), and Sex Trafficking Attitudes Scale (STAS)). However, each measure is structured differently such that the directionality of item phrasing must be taken into account; and several measures required directional re-coding of certain items, indicated by an asterisk (*). A summary of scale characteristics and correlation coefficients are presented in Table 8 (see Appendix Q).

Although McDonald's Omega (McDonald, 1999) is considered more appropriate for assessing factorial reliability, Cronbach's alpha is more widely recognized in assessing scale reliability. For this reason, Cronbach's alpha was reported in Table 8 (see Appendix Q) to enhance the interpretability of comparisons in scale characteristics. Cronbach's alpha ranged from .80 to .92 across research measures and sub-scales. Significant inter-measure correlations ranged in size from small ($r = .13$) to large ($r = .78$). As predicted, the 7-item empathic concern measure (Davis, 1980) was negatively correlated with two of the ATCSE subscales (Social Values and Health and Risk). However, empathic concern demonstrated the largest correlation ($r = .34$) with the Power

and Control sub-scale – but in the unexpected direction. One possible explanation for this is that those who rated higher on the empathy measure were more susceptible to perspective taking, or to seeing something from multiple perspectives. Although not included in this study, Perspective Taking represents an additional sub-scale of Davis' (1980) Interpersonal Reactivity Index, and is considered to be a key dimension of empathy. In the present study, highly empathetic participants may have been able to take multiple perspectives on the vignette scenario, which in turn may have led to greater endorsement of Power and Control subscale items.

Global Belief in a Just World, a 7-item measure of belief that the world is a fair place, was predicted to positively correlate with ATCSE items, given that higher scores on ATCSE reflect greater endorsement of CSE. As expected, GBJW scale scores were significantly positively correlated with Power and Control, and Health and Risk sub-scales of ATCSE; GBJW did not significantly correlate with Social Values.

Total scores from the Attitudes Towards Prostitution Scale (ATPS) and the Human Trafficking Myths Scale (HTMS) were both significantly positively correlated with all three ATCSE sub-scales. These positive correlational patterns provide support for convergent construct validity evidence, as was expected.

The Sex Trafficking Attitudes Scale (STAS) is a lengthy measure, therefore only the first three sub-scales were included, to minimize participant fatigue and construct duplicity. Sub-scales 1 and 3 (*Attitudes Towards Ability to Leave Sex Trafficking*, *Knowledge About Sex Trafficking*) were both significantly negatively correlated with all three ATCSE sub-scales. This pattern of findings is in line with the expectation that STAS would provide evidence for in this study for divergent construct validity with

ATCSE. However, STAS sub-scale 2 (Efficacy to Reduce Sex Trafficking) did not significantly correlate with any of the ATCSE sub-scales.

Overall, substantial support has been demonstrated in this study for the construct validity, as well as the internal consistency of each of the ATCSE dimensions. Each of the three sub-scales represent a unique facet of ATCSE, yet all three sub-scales are conceptually related. Although somewhat different in composition than the predicted factor structure, the identified factor structure bears a favorable congruency with the micro, exo, and macro sub-systems described by ecological systems theory (Bronfenbrenner, 1992). In Study 2, the three sub-scales (i.e. Power and Control, Social Values, Health and Risk) will serve as primary dependent measures in an applied social-psychological experiment.

Study 2 – Testing Attitudes Towards Commercial Sexual Exploitation

In Study 2, a 2x2 between-subjects factorial design was utilized to test for the effects of manipulated contextual factors on ATCSE subscale scores. Since little is known about public attitudes towards CSE and the factors that influence them, there is not sufficient evidence to support a directional hypothesis. Experimental manipulations were embedded in a brief written vignette depicting the exchange of sex for money (see Appendix R). The two manipulated independent variables were Sex-buyer Violence (Present vs. Absent) and Sex-Seller Injury (Present vs. Absent). These manipulations were chosen based on recurring themes in the literature that women involved in commercial sex are frequently exposed to buyer-perpetrated violence and are at risk for negative health outcomes including physical injury (Chang & Weng, 2015; Semple et al., 2015).

Sample. For Study 2, all materials were administered online to a sample of 383 individuals, comprised of 120 MTurk users and 263 undergraduate students at a Northeastern university. This sample was entirely unique from the sample utilized in Study 1.

Measures. The same set of measures were used as in Study 1; please refer to Table 3 for a summary of information about the research measures used.

Procedure. The same procedure was followed as in Study 1, except that participants were also presented with an experimental vignette depicting the exchange of sex for money. Following online completion of demographic items and attitudinal measures listed above, participants were randomly assigned to one of four experimental conditions, and read a brief vignette in which study manipulations were embedded (see Appendix R for experimental vignettes). Each vignette depicted the exchange of sex for money between two adults. Depending on condition, a male sex-buyer either engages in violence towards a female sex-seller, or does not; and the female sex-seller either sustains an injury, or does not. ATCSE scale items were presented last, to serve as the primary dependent measure.

Study 2 Results

Sample Demographics

With regards to gender, 33.2% (n = 127) of participants identified as Male, 66.5% (n = 254) identified as Female, and .3% (n = 1) identified as Transgender. A majority of participants (n = 254, 66.3%) fell within the age range (18-21), with remaining participants fairly evenly distributed among the age groups 22-25 (n = 28, 7.3%), 26-29 (n = 36, 9.4%), 30-34 (n = 28, 7.3%), 35-39 (n = 16, 4.2%), and 40 or Older (n = 21,

5.5%). Most participants (n = 353, 93%) responded “Yes” to the question, “Are you a citizen of the United States”, and 27 participants (7%) responded “No”; three participants declined to respond to this item.

Participants were asked to identify their ethnicity and race. Approximately 16% of respondents (n = 60) identified as Hispanic or Latino/a/x. With regards to race, 71.7% of respondents (n = 274) identified as White or Caucasian, 8.6% (n = 33) identified as Black or African American, 10.5% (n = 40) identified as Asian or Asian American, .5% (n = 2) identified as Native American or Pacific Islander, 4.2% (n = 16) identified as Multiracial, and 4.5% (n = 17) selected Other.

Participants were asked, “What is the highest level of education you have completed?” A majority of participants (n = 181, 47.4%) responded “Some College”, followed by “High School Diploma or GED” (n = 90, 23.6%), “Bachelor’s Degree” (n = 65, 17%), “Associates Degree” (n = 24, 6.3%), “Graduate Degree” (n = 20, 5.2%), and “Some High School” (n = 2, .5%).

Participants were asked, “How do you identify with regards to political orientation?” Responses were fairly evenly distributed across the response options “Somewhat Liberal” (n = 94, 24.6%), “Very Liberal” (n = 77, 20.2%), and “Unsure / Don’t Know” (n = 90, 23.6%). Fewer participants selected “Somewhat Conservative” (n = 56, 14.7%), and a small portion of respondents selected either “Very Conservative” (n = 38, 9.9%), or “Other” (n = 27, 7.1%).

Prior to conducting MANOVA, approximately half of items were directionally recoded; these items are denoted by an asterisk (*). ATCSE scale items were grouped into subscales according to the factor structure established in study 1 (see Table 6,

Appendix O). McDonald's Omega was computed for each subscale, and all three demonstrated acceptable internal reliability: Power and Control = .95, Social Values = .79, Health and Risk = .87. Subscale mean responses ranged from 15.61 to 18.64, with higher means reflecting greater endorsement of CSE.

MANOVA

MANOVA was conducted to explore whether manipulated contextual factors influenced attitudes towards CSE, using the outcome measure developed in Study 1. More specifically, the multivariate model contained two IV's (Sex-buyer Violence: Present v. Absent; Sex-seller Injury: Present v. Absent) and three DV's (the three subscale scores of ATCSE: Power and Control, Social Values, Health and Risk). The MANOVA test was non-significant, indicating there was no significant multivariate effect. However, a significant main effect was found for Sex-buyer Violence on Power and Control, $F(1, 292) = 5.35, p = .021$; partial eta squared = .02, indicating a small effect size.

Participants who read a scenario where the sex-buyer engaged in violence provided significantly higher ratings on the Power and Control subscale items ($n = 148, M = 20.19, SD = 12.40$), compared to participants who read a scenario without sex-buyer violence ($n = 148, M = 17.07, SD = 10.56$). The ATCSE items are presented on a six-point Likert type scale where 1 = Strongly Disagree and 6 = Strongly Agree. Items are phrased (or recoded) such that higher ratings are indicative of more favorable attitudes towards CSE. Therefore, the directionality of the main effect found indicates that participants exposed to violence towards women provided greater endorsement of the Power and Control dimension of ATCSE. The Power and Control subscale captures

attitudes towards gender-based power inequality in our society. This finding suggests that exposure to violence towards women is associated with greater tolerance of gender-based power inequality.

Post-Hoc Analysis

Two one-way ANOVAS were conducted as follow-up analyses to examine whether salient participant characteristics may have influenced how participants responded to the ATCSE items. Significant main effects were found for participant political orientation on all three ATCSE subscale scores (i.e. the sum of the three subscales). Additionally, significant main effects were found for participant gender on all three subscale scores, as well as on the ATCSE total score. A summary of these results can be found in Table 9 (See Appendix S).

Although unplanned, these follow-up tests provide meaningful information about why the overall model test may have been non-significant. By examining the ATCSE total scores as a starting point, it can be observed that the mean total scores were highest (indicating most favorable attitudes) among participants who identified as “Very Conservative” ($M = 60.16$, $n = 31$), followed by those who identified as “Somewhat Conservative” ($M = 55.94$, $n = 46$). Post-hoc analysis using Tukey’s test indicated that participants who identified as “Very Conservative” significantly differed from those who identified as either “Somewhat Liberal” ($M = 45.42$, $n = 69$) or “Unsure / Don’t Know” ($M = 43.96$, $n = 67$). All significant post-hoc comparisons are indicated in Table 9 (Appendix S).

Additionally, a main effect was found for participant gender on all three subscale scores, as well as on the total score. Since gender is not a binary variable, it was

important to include non-binary response choices (i.e. transgender) for this item.

However, only one participant in this sample identified as “Transgender” and this was not enough to allow for a between-groups comparison. Examination of between-groups means indicates that participants who identified as Female provided significantly lower ratings on the ATCSE, as reflected in a mean total score of 43.35 ($n = 194$), compared to a mean total score of 62.48 ($n = 100$) among participants who identified as men. All significant post-hoc comparisons are indicated in Table 9 (Appendix S).

Discussion

This study represents a preliminary step towards bringing the complex and challenging problem of commercial sexual exploitation into quantitative and social-psychological realms. Although there is no shortage of methodological barriers in this research area - starting with the absence of strong theoretical foundation, and ending with a lack of empirically tested research measures, the seriousness and the scale of the problem commands that an attempt be made. In a series of two studies, a theoretically and empirically based attitudinal measure was developed, and then implemented as the primary dependent variable in an experimental design.

ATCSE was developed with the goal of creating a research measure which was grounded in psychological theory, informed by the experiences of survivors of CSE, and versatile enough to be used across various research contexts. In these ways, ATCSE makes a unique contribution to the field, as previous scale development efforts in this area have either lacked theoretical basis, or have been narrow in their scope or utility. The development and quantitative validation of ATCSE using factor analytic techniques represents a significant step towards having a reliable and versatile research measure

which researchers can utilize to advance our understanding of CSE as a social-psychological phenomenon.

In Study 2, the goal was to demonstrate a possible method of examining attitudes towards CSE using an experimental design, as well as validate the utility of the newly created ATCSE measure, by including it as the primary dependent measure. Using this approach, a main effect was found of sex-buyer violence on Power and Control subscale scores. The directional pattern of this effect has interesting implications; participants exposed to sex-seller violence in the written vignette provided significantly higher (i.e. more favorable) ratings of the Power and Control items. The content of these items reflects systemic gender-based social inequalities, and the implication of this effect pattern is that exposure to violence towards women is associated with greater tolerance of gender-based power inequality.

In light of the many occupations that involve exposure to violence (i.e. first responders, law enforcement, social workers), as well as the chronic portrayal of violence towards women in mainstream media, this finding could potentially raise some concerns. However, it must be acknowledged that there is no history or foundation of prior findings here, which undergirds the rationale for choosing not to propose a directional hypothesis in this study. Since only a handful of studies have quantitatively measured CSE-related attitudes, and this was the first time utilizing ATCSE as a dependent measure, it was not known if a main effect would be found at all. Further, there was no clear basis for predicting the effect pattern that was found. With this in mind, there are a few plausible explanations for this effect pattern.

One possible explanation of this is that the presentation of violence towards women in the written scenario primed participants in such a way that they were desensitized to the violent language included in several of the Power and Control items, such as “*A woman who refuses to sell sex deserves to be beaten*” and “*A woman who sells sex should accept that men want violent sex.*” Another possibility is that participants engaged in victim-blame, and the Power and Control subscale captured their reactivity towards the female sex-seller in the scenario.

A likely explanation is that participants experienced some degree of in-out group bias on the basis of gender. For example, male participants may have related to or identified with the male sex-buyer, and female participants may have related to or identified with the female sex-seller. This manifestation of gender-group bias may have interfered with the measurement of attitudes towards CSE, or may have shifted responses. Another consideration is that, in line with the gender-based power inequality which the Power and Control dimension captures, men who read the scenario may have had a negative reaction to the female sex-seller refusing to sell sex to the male sex-buyer, by telling him to “piss off”. Ultimately, more research is needed to explore the relationship between gender-group bias and attitudes towards CSE.

Limitations

A broad limitation of this research area is the stigma surrounding CSE, and the lack of available quantitative literature to guide research design. Stigma aside, CSE remains a highly politicized topic, with a clear division among scholars regarding the inherent nature of commercial sex and whether it should be considered a valid form of work under some circumstances, or whether it represents a systematic form of harm

towards women. Therefore, scholars studying CSE must have awareness of this divide, and must be prepared to not only know their stance, but to justify their stance in the scholarly tradition. Scholars who are willing to tackle difficult methodological issues may not necessarily be ready to address the highly stigmatized and politicized nature of this topic.

With regards to the design of the present study, one possible limitation is that the manipulations may have been too weak to elicit an effect. Although written vignettes have traditionally been used to examine individual difference factors in social-psychological research, only one other study could be identified that utilized a written vignette in a study related to CSE (Cunningham & Cromer, 2016). Therefore, not much of a precedent has been set in terms of successful written vignettes, or other types of manipulations (i.e. social, visual, auditory) in the study of CSE.

Some specific concerns about the vignette include that it may have lacked authenticity, particularly because the female sex-seller tells the sex-buyer to “piss off”, essentially refusing to sell sex. Although participants were instructed that they were about to read a scenario depicting the exchange of sex for money, there may have been confusion for the reader as to whether the female character was actually selling sex, and may have alienated male readers who identified with the male sex-buyer. Overall, CSE is a violent and sexually graphic topic, and it is difficult to create a realistic portrayal of CSE without presenting inflammatory content.

In future studies, presentation of different types of stimuli and other manipulations should be considered, such as audio-visual and/or video stimuli, which may provide more richness and elicit a stronger reaction from participants. Additionally,

when creating a new vignette or manipulation, it is preferable to pilot the manipulation to test its viability in producing a between-groups difference. In the present study, the vignettes were not piloted, which is a limitation. A line of exploratory research is needed to investigate and test various stimuli and manipulations in order to further develop methodological best practices in this new and complex research area.

Another consideration is the possibility that the written vignette was effective, but that it essentially primed participants with violence towards women, leading participants in violent-present conditions to provide greater overall endorsement of CSE. Follow-up analyses indicated that participant characteristics, such as political orientation and gender, were significantly related to attitudes towards CSE; and it is possible that these unaccounted for between-groups differences at least partially confounding the written manipulations. Future analyses could examine these factors further. In the present study, demographic items did not include a measure of socioeconomic status (SES); this poses a limitation as SES may be relevant to attitudes towards CSE, as were gender and political orientation.

Another limitation, from a quantitative standpoint, is that the three identified factors (i.e. Power and Control, Social Values, and Health and Risk) are imbalanced with regards to item volume. The initial results of the Exploratory Factor Analysis (EFA) indicated a three-factor structure, with Factor 1 having 16 items, and Factors 2 and 3 having 9 and 10 items, respectively. This imbalance is further exhibited in the proportion of variance accounted for by each factor. Factor 1 accounts for 30% of model variance, whereas Factors 2 and 3 account for only 12% each.

Future Directions

In light of the inconsistent number of items across factors, scholars seeking to further advance scale development efforts in this area should consider developing additional items to incorporate into Factors 2 and 3. If all three factors were equal in number of items, it would be likely to improve the internal validity and functionality of the scale. Additionally, future item analysis should examine the readability of item content, to explore whether item readability may be impacting comprehension.

Another future direction would be to include ATCSE and other relevant individual difference factors in a path analysis or multiple regression model. Ideally, path analysis would be utilized to examine the predictive relationships among individual difference factors related to ATCSE, including but not limited to gender, SES, belief in a just world, empathy, knowledge about human trafficking, and attitudes towards prostitution.

Scholars in this area might also consider re-visiting the idea of an experimental design, but using different manipulations. Even if the manipulations chosen in Study 2 (i.e. Sex Buyer Violence and Sex Seller Injury) do have an impact on ATCSE, it is possible that the presentation of these manipulations was too weak and did not register. A series of pilot studies may be needed to determine what manipulations are appropriate, and how best to present them. Additionally, future studies should include manipulation checks to ensure that participants are adequately attending to the study materials.

In conclusion, the study of CSE is a challenging and compelling research area, with much territory left to cover. The development of ATCSE is an invitation to quantitative and applied researchers to consider CSE as a viable and uncharted area of social-psychological research. Although qualitative researchers have honed in on both the

specific harms endured by those who have experienced CSE, and the broader societal factors related to CSE (i.e. gender, poverty, race), quantitative researchers have had little involvement in the investigation of CSE as a human rights crisis and current social justice issue. Although it is clear that expansion and advancement of CSE-related research is needed, the present study serves as a demonstration of how CSE can be framed as a social-psychological issue, by incorporating both psychological theory and rigorous quantitative methods.

Appendix A

Figure 1. Diagram of Ecological Systems Theory

Appendix B

Table 1. List of Qualitative Articles Reviewed for Scale Item Development

Authors	Year	Title	Journal	Sample Size	Focus & Main Themes
Baldwin, Fehrenbacher, Eisenman	2015	Psychological Coercion in Human Trafficking	Qualitative Health Research	12	Focus: Identifying types of coercion present in trafficking <ul style="list-style-type: none"> Both psychological and physical abuse reported Coercion presents in a wide range of forms, depending on the nature of the relationship between trafficker and victim
Cavalcante Carvalho Moreira & Ferreira de Souza Monteiro	2012	The Violence in Everyday Prostitution of Women	Review of Latino-American Nursing	11	Focus: Violence against women involved in prostitution <ul style="list-style-type: none"> Commercial sex is characterized by violence, control humiliation, and degradation Men will pay more to engage in violent and immoral acts with prostitutes Violence and control illustrative of gender-based power differentials
Cecchet & Thoburn	2014	The Psychological Experience of Child and Adolescent Sex Trafficking in the United States: Trauma and Resilience in Survivors	Psychological Trauma: Theory, Research, Practice and Policy	6	Focus: Trauma and coping among survivors of child sex trafficking <ul style="list-style-type: none"> Survivors described predisposing vulnerability i.e. child abuse, sexual abuse, absent father Recruitment tied to a desire to feel loved, being in love with a pimp, and exposure to prostitution in community Life in the sex trade associated with constant threats and sources of violence i.e. pimps, johns, substance abuse Pimps use isolation to maintain power over victims All six participants reported having a child with a pimp – making it difficult to entirely sever ties

					<ul style="list-style-type: none"> Survivors motivated to leave the sex trade by factors such as pregnancy, mental health, and desire to change lifestyle
Collins, Goldenberg, Burke, Bojorquez-Chapela, Silverman, Strathdee	2013	Situating HIV Risk in the lives of Formerly Trafficked Female Sex-workers on the Mexico-US Border	AIDS Care	24	<p>Focus: Examining HIV risk among survivors of trafficking</p> <ul style="list-style-type: none"> Ongoing trauma and abuse leads to negative health outcomes including contraction of HIV Women described economic vulnerability, chronic violence, ongoing psychological trauma Chronic and complex trauma increase HIV risk
Edinburgh, Pape-Blabolil, Harpin, & Saewyc	2015	Assessing Exploitation Experiences of Girls and Boys seen at a Child Advocacy Center	Child Abuse and Neglect	62	<p>Focus: The self-described experiences of trafficked children</p> <ul style="list-style-type: none"> Sexually exploited after running away or being kicked out of their homes Recruited into sex trade by older girls Pimps seen as boyfriends or intimate partners High rate of sexually transmitted infection
Farley, Deer, Golding, Matthews, Lopez, Stark, Hudon	2016	The Prostitution and Trafficking of American Indian/Alaska Native Women in Minnesota	American Indian and Alaska Native Mental Health Research	105	<p>Focus: Social and physical violence experienced by AI/AN women</p> <ul style="list-style-type: none"> Women had histories of rape, homelessness, and assault Women experienced physical symptoms of trauma including muscle pain, headaches, and impaired memory Most met criteria for PTSD, experienced dissociation Connection between colonization and prostitution of AI/AN women – Intersection of gender and race
Goldenberg, Silverman, Engstrom, Bojorquez-Chapela, & Strathdee	2014	“Right Here is the Gateway”: Mobility, Sex Work Entry, and HIV Risk along the Mexico-U.S. Border	Journal of Division of Global Public Health	31	<p>Focus: Factors affecting sex work entry and HIV risk</p> <ul style="list-style-type: none"> Migrant women looking for economic opportunity are at risk for entry into sex trade – voluntarily or involuntarily Threat of deportation used as a coercive tactic to recruit migrant women into the sex trade

					<ul style="list-style-type: none"> Forced migration associated with forced sex work
Goldenberg, Silverman, Engstrom, Bojorquez-Chapela, Usita, Rolon, & Strathdee	2015	Exploring the Context of Trafficking and Adolescent Sex Industry Involvement in Tijuana Mexico: Consequences for HIV Risk & Prevention	Journal of Violence Against Women	30	<p>Focus: Historical accounts of prior involvement in the sex industry</p> <ul style="list-style-type: none"> Driven into sex trade by lack of food and shelter Economic insecurity makes youth vulnerable to involvement in the sex trade Experienced gender-based violence and abuse Highest HIV risk in early years of sex trade involvement
Jones, Engstrom, Hilliard, & Sungakawan,	2009	Human Trafficking between Thailand and Japan: Lessons in Recruitment, Transit and Control	International Journal of Social Welfare	4	<p>Focus: Recruitment and international transportation of Thai women</p> <ul style="list-style-type: none"> Economic vulnerability led to recruitment into sex trade Women deceived and loaded with fraudulent debts Forced to pay off debts by sex work in Japan
Le	2017	Reconstructing a Sense of Self: Trauma and Coping among Returned Women Survivors of Human Trafficking in Vietnam	Qualitative Health Research	15	<p>Focus: Psychological adjustment in previously trafficked women</p> <ul style="list-style-type: none"> Upon returning home from trafficking, women do not feel safe, lack a sense of security Women face stigma for what they have gone through Once no longer in trafficking, women have to learn entire new set of coping strategies It takes time to regain psychological strength after trauma
Muftic & Finn	2013	Health Outcomes Among Women Trafficked for Sex in the United States	Journal of Interpersonal Violence	38	<p>Focus: Examining risk factors to health among trafficked women</p> <ul style="list-style-type: none"> Domestically trafficked women had poor health outcomes Street prostitution associated with worse health outcomes

					<ul style="list-style-type: none"> Childhood abuse associated with poor physical health
Peled & Parker	2013	The Mothering Experiences of Sex-Trafficked Women	American Journal of Orthopsychiatry	8	Focus: The impact of sex trafficking on motherhood <ul style="list-style-type: none"> Women have conflicting identities as mothers and as prostitutes – try to keep these worlds separate, distinct Trafficked women describe suffering as a form of sacrifice for their children
Ravi, Pfeiffer, Rosner, Shea	2017	Identifying Health Experiences of Domestically Sex-Trafficked Women in the USA	Journal of Urban Health	21	Focus: Health outcomes among trafficked women in the USA <ul style="list-style-type: none"> Trafficked women have little access to healthcare Incarceration was often the only way to access healthcare Trafficked women are at high risk for infectious disease Commercial sex has impact on reproductive health
Raymond & Hughes	2002	International & Domestic Trends in Sex Trafficking of Women in the United States	DOJ Report	40	Focus: Comprehensive investigation of trends in trafficking <ul style="list-style-type: none"> Women report histories of past physical, sexual, and emotional abuse Women were pimped by husbands, boyfriends, or intimate partners – experienced intimate partner violence Women kept in the sex trade to pay off invented “debts” Violence used to season or “break” women into prostitution Prostitution closely tied to pornography and stripping Pimps use control tactics including isolation, financial control, brainwashing, threats and actual violence

					<ul style="list-style-type: none"> • Women intimidated into meeting the sexual demands of pimps and customers – faced violence if refused • Substance abuse used as a coping mechanism, then women develop dependency and must rely on pimps to fulfil habit • Male customers willing to pay more to engage in violent sex with prostitutes
Rodriguez Martinez	2015	An Intersectional Analysis of Intimate Partner Violence among Women Working in Prostitution	Spanish Journal of Sociological Research	12	<p>Focus: Intimate partner violence among women in prostitution</p> <ul style="list-style-type: none"> • Chain of negative life events led to selling sex i.e. abusive relationships, drug use, lack of financial stability • Experienced a great deal of conflict prior to selling sex • Turned to prostitution because they could no longer perform the role of the “decent woman” i.e. wife or mother • Complex webs of violence at multiple layers of society

Appendix C

Table 2. Summary of Identified Themes and Associated Scale Items

Micro-system (A person's immediate environment and those she directly interacts with)	Themes <ul style="list-style-type: none"> • Vulnerability to recruitment • Romantic or intimate relationships with pimps • Chronic exposure to violence and trauma • Psychological coercion • Poor health outcomes 	Scale Items <ol style="list-style-type: none"> 1. Selling sex is a good option for someone who has run away from home 2. If someone I knew was facing homelessness, I would encourage them to sell sex 3. As a community, we need to do more to prevent people from entering the sex trade* 4. Someone who doesn't feel loved should try selling sex 5. It is not okay for a woman's husband or boyfriend to suggest she sells sex* 6. If a woman earns money selling sex, her husband or boyfriend should control all the money 7. A woman who sells sex should accept that men want violent sex 8. Men who pay for sex do not have the right to demand violent sex* 9. A woman who refuses to sell sex deserves to be beaten 10. If selling sex is negatively impacting an individual's health, they should try to stop* 11. Even if selling sex earns a lot of money, it is not worth the risk of contracting illnesses, such as HIV* 12. A man does not have the right to demand sex without a condom*
Exo-system (Social structures and institutions that a person may or may not directly interact with)	Themes <ul style="list-style-type: none"> • Economic instability drives sex trade entry • Inability to obtain healthcare • Need for services and interventions for survivors • Failure of law enforcement to protect victims 	Scale Items <ol style="list-style-type: none"> 13. Selling sex is not a good way to improve your financial situation* 14. Selling sex is the best option for people from poor areas 15. If a woman owes money, she should sell sex until her debt is paid off 16. Government agencies should do more to protect people involved in the sex trade* 17. If someone in my family sold sex, I would be worried about them* 18. A woman who sells sex can leave the sex trade at any time she wants 19. As a society, we should invest more money and resources to abolish the sex trade* 20. We need more services and agencies to help people leave the sex trade* 21. It is okay for police to harass or solicit sex from women who sell sex 22. Women who sell sex should not expect to be protected by police
Macro-system (Culture, values, social rules, and laws)	Themes <ul style="list-style-type: none"> • Great deal of stigma and shame surrounding CSE victimization • Sex trade reflects structural power imbalances between men and women • The authority of the law is conflated with male power 	Scale Items <ol style="list-style-type: none"> 23. If I could, I would vote to end the sex trade* 24. Pornography and stripping are fundamentally different from selling sex 25. Boys and young men should be taught from an early age that it is wrong to buy sex* 26. It is okay for a man to control most aspects of a woman's life 27. A man does not have the right to own a woman* 28. If my partner bought or sold sex, I would end the relationship* 29. Buying or selling sex goes against my beliefs* 30. A woman's worth is determined by her ability to sexually satisfy men 31. There is something wrong with commodifying women's bodies* 32. Women should accept that men have a higher social status than they do 33. Men do not have the right to purchase sex from women* 34. A woman who sells sex cannot be raped, even if a customer does things against her wishes 35. Feminists who compare the sex trade to slavery are just exaggerating

*Item requires reverse coding

Appendix D

Table 3. Summary of Included Research Measures

Title	Authors	Construct	Items	Cronbach's Alpha	Purpose
Interpersonal Reactivity Index (IRI) – Empathic Concern Scale	Davis (1980)	Empathic concern for others	7	.70 – .78	Establishing divergent construct validity
Global Belief in a Just World Scale (GBJWS)	Lipkus (1991)	Belief that the world is fair and just	7	.83	Establishing convergent construct validity
Attitudes Towards Prostitution Scale (ATPS)	Sawyer & Metz (2009)	Attitudes towards prostitutes	14	.61 – .80	Establishing convergent construct validity
Human Trafficking Myths Scale (HTMS)	Cunningham & Cromer (2016)	False beliefs about human trafficking	17	.83	Establishing convergent construct validity
Sex Trafficking Attitudes Scale (STAS)	Houston-Kolnik, Todd, & Wilson (2016)	Knowledge and awareness of trafficking	33	.75 – .84	Establishing divergent construct validity

Appendix E

Informed Consent Form

Electronic Consent Form for Research

Thank you for your interest in our study. Please review the information below, and provide your signature if you would like to participate.

Study Title

Examining Sex Trafficking and Interpersonal Violence: An Ecological Systems Approach

Principal Investigator: Lisa Harlow, Ph.D. Office: (401) 874-4242 Email: lharlow@uri.edu

Secondary Investigator: Rachel Small, M.A. Cell (860) 912-3564 Email: rachelsmall@my.uri.edu

Key Information

Important information to know about this research study:

- The purpose of the study is to learn more about public attitudes towards the sex trade.
- If you choose to participate, you will be asked to complete a questionnaire, and to read a brief passage.
- Participation should take no longer than 30 minutes.
- There are no anticipated risks or discomforts associated with participating.
- Taking part in this research project is voluntary. You do not have to participate and you may choose to stop at any time.

Invitation

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please do not hesitate to ask.

Why are you being asked to be in this research study?

You are being asked to participate in this study because you are a community member who is above the age of 18.

What is the reason for doing this research study?

Sex trafficking is a form of crime that has negatively impacted our communities. Although the harm caused by sex trafficking is widely acknowledged, there is not a lot of research on this topic. We are conducting this study to examine public attitudes towards the sex trade.

What will be done during this research study?

By participating in this study, you will be asked to complete a questionnaire, and to read a brief passage.

What are the possible risks of being in this research study?

There are no anticipated risks associated with this study.

What are the possible benefits to you?

There are no direct benefits to you for participating.

What are the possible benefits to other people?

Since there is not much research available on attitudes towards sex trafficking, your participation in this study will make a unique and important contribution to science. The findings from this study are likely to inform policy and prevention strategies in the future.

What will being in this research study cost you?

There is no cost to you to be in this research study.

Will you be compensated for being in this research study?

Mechanical Turk users will be compensated \$1.00 for participating. Undergraduate students will not be compensated.

What should you do if you have a problem during this research study?

Your welfare is the major concern of our research team. If you have a problem as a direct result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

How will information about you be protected?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data. All documentation associated with this project will be stored in a locked cabinet in the investigator's office and will only be seen by the research team during the study and for 5 years after the study is complete.

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

What are your rights as a research subject?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator(s) listed at the beginning of this form.

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB) or Vice President for Research and Economic Development:

- IRB: (401) 874-4328 / researchintegrity@etal.uri.edu.
- Vice President for Research and Economic Development: at (401) 874-4576

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with the University of Rhode Island. You will not lose any benefits to which you are entitled.

Online Consent to Participate

I have read and understand the above consent form. I certify that I am at least 18 years old. By clicking the button below to begin the survey, I indicate my willingness to voluntarily participate in the study.

Appendix F

Demographic Items

Please complete this brief questionnaire to provide some information about yourself:

How do you identify with regards to gender:

- ☐ Male [1]
- ☐ Female [2]
- ☐ Transgender [3]
- ☐ Other [4]

How old are you? Please select one of the categories below:

- ☐ 18-21 [1]
- ☐ 22-25 [2]
- ☐ 26-29 [3]
- ☐ 30-34 [4]
- ☐ 35-39 [5]
- ☐ 40 or older [6]

Are you a citizen of the United States?

- ☐ Yes [1]
- ☐ No [2]

Are you Hispanic or Latino/a/x?

- ☐ Yes [1]
- ☐ No [2]

How do you identify with regards to race?

- ☐ White or Caucasian [1]
- ☐ Black or African American [2]
- ☐ Asian or Asian American [3]
- ☐ Native American or Pacific Islander [4]
- ☐ Multiracial [5]
- ☐ Other [6]

What is the highest level of education you have completed?

- ☐ Elementary or Middle School [1]
- ☐ Some High School [2]
- ☐ High School Diploma or GED [3]
- ☐ Some college [4]
- ☐ Associates degree [5]
- ☐ Bachelors degree [6]
- ☐ Graduate degree [7]

How do you identify with regards to political orientation?

- ☐ Somewhat liberal [1]
- ☐ Very liberal [2]
- ☐ Somewhat conservative [3]
- ☐ Very conservative [4]
- ☐ Unsure / Don't know [5]
- ☐ Other [6]

Appendix G

Initial Set of ATCSE Scale Items

Rating Scale					
1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

1. Selling sex is a good option for someone who has run away from home	19. As a society, we should invest more money and resources to abolish the sex trade*
2. If someone I knew was facing homelessness, I would encourage them to sell sex	20. We need more services and agencies to help people leave the sex trade*
3. As a community, we need to do more to prevent people from entering the sex trade*	21. It is okay for police to harass or solicit sex from women who sell sex
4. Someone who doesn't feel loved should try selling sex	22. Women who sell sex should not expect to be protected by police
5. It is not okay for a woman's husband or boyfriend to suggest she sells sex*	23. If I could, I would vote to end the sex trade*
6. If a woman earns money selling sex, her husband or boyfriend should control all the money	24. Pornography and stripping are fundamentally Different from selling sex
7. A woman who sells sex should accept that men want violent sex	25. Boys and young men should be taught from an early age that it is wrong to buy sex*
8. Men who pay for sex do not have the right to demand violent sex*	26. It is okay for a man to control most aspects of a woman's life
9. A woman who refuses to sell sex deserves to be beaten	27. A man does not have the right to own a woman*
10. If selling sex is negatively impacting an individual's health, they should try to stop*	2. If my partner bought or sold sex, I would end the relationship*
11. Even if selling sex earns a lot of money, it is not worth the risk of contracting illnesses, such as HIV*	3. Buying or selling sex goes against my beliefs*
12. A man does not have the right to demand sex without a condom*	30. A woman's worth is determined by her ability to sexually satisfy men
13. Selling sex is not a good way to improve your financial situation*	31. There is something wrong with commodifying women's bodies*
14. Selling sex is the best option for people from poor areas	32. Women should accept that men have a higher social status than they do
15. If a woman owes money, she should sell sex until her debt is paid off	33. Men do not have the right to purchase sex from women*
16. Government agencies should do more to protect people involved in the sex trade*	34. A woman who sells sex cannot be raped, even if a customer does things against her wishes
17. If someone I knew was selling sex, I would be worried about them*	35. Feminists who compare the sex trade to slavery are just exaggerating
18. A woman who sells sex can leave the sex trade at any time she wants	

**Item requires reverse coding*

Appendix H

Interpersonal Reactivity Index – Empathic Concern Subscale (Davis, 1980)

ANSWER SCALE				
A Does Not Describe Me Well	B	C	D	E Describes Me Very Well
<ul style="list-style-type: none"> I often have tender, concerned feelings for people less fortunate than me. 				
<ul style="list-style-type: none"> Sometimes I don't feel very sorry for other people when they are having problems* 				
<ul style="list-style-type: none"> When I see someone being taken advantage of, I feel kind of protective towards them. 				
<ul style="list-style-type: none"> Other people's misfortunes do not usually disturb me a great deal.* 				
<ul style="list-style-type: none"> When I see someone being treated unfairly, I sometimes don't feel very much pity for them.* 				
<ul style="list-style-type: none"> I am often quite touched by things that I see happen. 				
<ul style="list-style-type: none"> I would describe myself as a pretty soft-hearted person. 				

**Item requires reverse coding*

Appendix I

Global Belief in a Just World Scale (Lipkus, 1991)

Rating Scale					
1	2	3	4	5	6
Strongly Disagree					Strongly Agree

<ul style="list-style-type: none">• I feel that people get what they are entitled to have.
<ul style="list-style-type: none">• I feel that a person's efforts are noticed and rewarded.
<ul style="list-style-type: none">• I feel that people earn the rewards and punishments they get.
<ul style="list-style-type: none">• I feel that people who meet with misfortune have brought it on themselves.
<ul style="list-style-type: none">• I feel that people get what they deserve.
<ul style="list-style-type: none">• I feel that rewards and punishments are fairly given.
<ul style="list-style-type: none">• I basically feel that the world is a fair place.

Appendix J

Attitudes Towards Prostitution Scale Items (Sawyer & Metz, 2009)

Rating Scale			
1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

<ul style="list-style-type: none"> Prostitutes enjoy their work.
<ul style="list-style-type: none"> Prostitutes genuinely like men.
<ul style="list-style-type: none"> Prostitutes make a lot of money.
<ul style="list-style-type: none"> Women are prostitutes because they want to be. It is their choice.
<ul style="list-style-type: none"> Most men go to prostitutes once in a while.
<ul style="list-style-type: none"> Prostitution should be decriminalized.
<ul style="list-style-type: none"> Prostitution should be legalized.
<ul style="list-style-type: none"> There is nothing wrong with prostitution.
<ul style="list-style-type: none"> It would be okay if my daughter grew up to be a prostitute.
<ul style="list-style-type: none"> It would be okay if my son went to prostitutes.
<ul style="list-style-type: none"> If I were thinking about getting married I would not mind marrying a prostitute.
<ul style="list-style-type: none"> As long as a man's wife does not know about it, there is no harm to a marriage if a man goes to a prostitute.
<ul style="list-style-type: none"> Prostitutes are victims of pimps.
<ul style="list-style-type: none"> Most men prefer young prostitutes.

Appendix K

Human Trafficking Myths Scale Items (Cunningham & Cromer, 2016)

Rating Scale					
1	2	3	4	5	6
Definitely False	Mostly False	Probably False	Probably True	Mostly True	Definitely True

<ul style="list-style-type: none"> Human trafficking is another term for smuggling.
<ul style="list-style-type: none"> Human trafficking must include elements of physical force, restraint, bondage, and/or violence.
<ul style="list-style-type: none"> Human trafficking does not happen in the United States.
<ul style="list-style-type: none"> If someone did not want to be trafficked, he or she would leave the situation.
<ul style="list-style-type: none"> U.S. citizens are trafficked in their own country.*
<ul style="list-style-type: none"> Human trafficking victims will seek help as soon as they have the opportunity.
<ul style="list-style-type: none"> People from other countries who are trafficked in the United States are always illegal immigrants.
<ul style="list-style-type: none"> Normal-appearing, well-educated, middle-class people are not trafficked.
<ul style="list-style-type: none"> Human trafficking victims will tell authorities they are being trafficked as soon as they have the opportunity.
<ul style="list-style-type: none"> Human trafficking must involve some form of travel, transportation, or movement across state or national borders.
<ul style="list-style-type: none"> If persons are trafficked in the United States, they are always from poor, uneducated communities.
<ul style="list-style-type: none"> If a child solicits sex from an adult in exchange for money, food, or shelter, he or she is not a victim.
<ul style="list-style-type: none"> Only foreigners and illegal immigrants are trafficked.
<ul style="list-style-type: none"> Human trafficking is always controlled by organized crime.
<ul style="list-style-type: none"> A person who is trafficked will always feel negatively toward the person(s) trafficking him or her.
<ul style="list-style-type: none"> If a person receives any kind of payment for sex, he or she is not being trafficked.
<ul style="list-style-type: none"> Human trafficking only occurs in undeveloped countries.

**Item requires reverse coding*

Appendix L

Sex Trafficking Attitudes Scale: Subscales 1-3 (Houston-Kolnik, Todd, & Wilson, 2016)

Rating Scale					
1	2	3	4	5	6
Strongly Disagree					Strongly Agree

Subscale	Item
Attitudes Toward Ability to Leave Sex Trafficking	<ul style="list-style-type: none"> • A trafficked person has the ability to leave her circumstances.*
	<ul style="list-style-type: none"> • It is not a person's choice to be trafficked.
	<ul style="list-style-type: none"> • Some women choose to be trafficked.*
	<ul style="list-style-type: none"> • Some girls choose to be trafficked.*
	<ul style="list-style-type: none"> • A trafficked person could go to the police, but she chooses not to.*
	<ul style="list-style-type: none"> • If a trafficked person chose to leave, the problem would be over.*
	<ul style="list-style-type: none"> • A person who is trafficked has been deceived or forced into the situation.
Efficacy to Reduce Sex Trafficking	<ul style="list-style-type: none"> • I can make a difference for trafficked persons.
	<ul style="list-style-type: none"> • I have the ability to work against trafficking through political involvement.
	<ul style="list-style-type: none"> • I am able to raise public awareness about trafficking.
	<ul style="list-style-type: none"> • I can address structural inequalities and barriers facing trafficked persons.
	<ul style="list-style-type: none"> • I feel inadequate to help trafficked persons.*
	<ul style="list-style-type: none"> • I feel helpless to assist trafficked persons.*
	<ul style="list-style-type: none"> • I feel powerless to help people who have been trafficked.*
Knowledge About Sex Trafficking	<ul style="list-style-type: none"> • A person is trafficked if she is kidnapped and employed in the sex industry.
	<ul style="list-style-type: none"> • A person is trafficked when someone uses fraud to employ her in the sex industry
	<ul style="list-style-type: none"> • A person is trafficked when someone uses coercion to employ her in the sex industry.
	<ul style="list-style-type: none"> • A prostitute can become trafficked if she is restrained from leaving her occupation.
	<ul style="list-style-type: none"> • Someone under the age of 18 who works in the sex industry is trafficked.

Appendix M

Table 4. Breakdown of Study 1 Sample Demographics by Sub-Sample

Item	Response	EFA Sample (n = 200)		CFA Sample (n = 334)	
		n	%	n	%
Sample	MTurk	82	41%	106	32%
	University in New England	118	59%	228	68%
Gender	Male	82	41%	200	60%
	Female	115	58%	131	39%
	Transgender	1	< 1%	2	< 1%
Age	18-21	112	56%	113	34%
	22-25	19	9%	41	12%
	26-29	27	14%	63	19%
	30-34	8	4%	36	11%
	35-39	12	6%	32	10%
	40 or Older	21	11%	48	14%
Citizenship	Are you a citizen of the US? – “Yes”	177	90%	286	86%
	Are you a citizen of the US? – “No”	19	10%	45	14%
Ethnicity	Are you Hispanic or Latino/a/x? – “Yes”	32	16%	52	16%
	Are you Hispanic or Latino/a/x? – “No”	168	84%	282	84%
Race	White or Caucasian	140	70%	219	66%
	Black or African American	16	8%	23	7%
	Asian or Asian American	18	9%	60	18%
	Native American or Pacific Islander	2	1%	3	1%
	Multiracial	11	5%	11	3%
	Other	13	6%	17	5%
Education Level	Some High School	3	2%	1	< 1%
	High School Diploma or GED	47	23%	62	18%
	Some College	88	44%	107	32%
	Associates Degree	12	6%	24	7%
	Bachelor’s Degree	42	21%	116	35%
	Graduate Degree	8	4%	23	7%
Political Orientation	Somewhat Liberal	51	25%	67	20%
	Very Liberal	52	26%	94	28%
	Somewhat Conservative	33	17%	75	23%
	Very Conservative	18	9%	41	12%
	Unsure / Don’t Know	36	18%	39	12%
	Other	10	5%	18	5%

Appendix N

Table 5. Exploratory Factor Analysis (EFA) Results: Item Loadings by Factor

Factor	Item	Loading	Retained	Rationale
Power and Control	2. If someone I knew was facing homelessness, I would encourage them to sell sex	.89	Yes	High factor loading
	7. A woman who sells sex should accept that men want violent sex	.88	Yes	High factor loading
	15. If a woman owes money, she should sell sex until her debt is paid off	.88	Yes	High factor loading
	26. It is okay for a man to control most aspects of a woman's life	.87	Yes	Adds to construct – control
	21. It is okay for police to harass or solicit sex from women who sell sex	.86	Yes	Adds to construct – systems
	30. A woman's worth is determined by her ability to sexually satisfy men	.86	Yes	Adds to construct – sex
	32. Women should accept that men have a higher social status than they do	.86	Yes	Adds to construct – status
	9. A woman who refuses to sell sex deserves to be beaten	.85	Yes	Adds to construct – violence
	4. Someone who doesn't feel loved should try selling sex	.84	Yes	Adds to construct – romance
	6. If a woman earns money selling sex, her husband or boyfriend should control all the money	.79	Yes	Adds to construct – financial control
	14. Selling sex is the best option for people from poor areas	.78	No	Not aligned with construct
	1. Selling sex is a good option for someone who has run away from home	.74	No	Low factor loading, redundant with item 2
	34. A woman who sells sex cannot be raped, even if customer does things against her wishes	.71	No	Low factor loading, redundant with item 9
	22. Women who sell sex should not expect to be protected by police	.70	No	Low factor loading, redundant with item 21
	35. Feminists who compare the sex trade to slavery are just exaggerating	.65	No	Low factor loading
	19. A woman who sells sex can leave the sex trade at any time she wants	.54	No	Low factor loading
Social Values	23. If I could, I would vote to end the sex trade*	.90	Yes	High factor loading
	29. Buying or selling sex goes against my beliefs*	.79	Yes	High factor loading
	19. As a society, we should invest more money and resources to abolish the sex trade*	.71	Yes	Adds to construct – abolitionism

	25. Boys and young men should be taught from an early age that it is wrong to buy sex*	.66	Yes	Adds to construct – morality
	13. Selling sex is not a good way to improve your financial situation*	.46	Yes	Adds to construct – monetary gain
	33. Men do not have the right to purchase sex from women*	.46	Yes	Adds to construct – sexual consumerism
	28. If my partner bought or sold sex, I would end the relationship*	.43	No	Low factor loading, redundant with item 25
	3. As a community, we need to do more to prevent people from selling sex*	.41	No	Low factor loading, redundant with item 19
Health and Risk	12. A man does not have the right to demand sex without a condom*	.80	Yes	High factor loading
	10. If selling sex is negatively impacting an individual's health, they should try to stop*	.74	Yes	High factor loading
	11. Even if selling sex earns a lot of money, it is not worth the risk of contracting illnesses, such as HIV*	.60	Yes	Adds to construct – HIV risk
	8. Men who pay for sex do not have the right to demand violent sex*	.58	Yes	Adds to construct – sexual violence
	27. A man does not have the right to own a woman*	.57	Yes	Adds to construct – exploitation
	16. Government agencies should do more to protect people involved in the sex trade*	.53	Yes	Adds to construct – harm reduction
	17. If someone in my family sold sex, I would be worried about them*	.51	Yes	Adds to construct – overall wellness
	5. It is not okay for a woman's husband or boyfriend to suggest she sells sex*	.45	No	Low factor loading
	20. We need more services and agencies to help people leave the sex trade*	.43	No	Low factor loading

*Item requires reverse coding

Appendix O

Table 6. Revised Item Composition of ATCSE

Factor	Item
Power and Control	1. If someone I knew was facing homelessness, I would encourage them to sell sex
	2. Someone who doesn't feel loved should try selling sex
	3. If a woman earns money selling sex, her husband or boyfriend should control all the money
	4. A woman who sells sex should accept that men want violent sex
	5. A woman who refuses to sell sex deserves to be beaten
	6. If a woman owes money, she should sell sex until her debt is paid off
	7. It is okay for police to harass or solicit sex from women who sell sex
	8. It is okay for a man to control most aspects of a woman's life
	9. A woman's worth is determined by her ability to sexually satisfy men
	10. Women should accept that men have a higher social status than they do
Social Values	11. Selling sex is not a good way to improve your financial situation*
	12. As a society, we should invest more money and resources to abolish the sex trade*
	13. If I could, I would vote to end the sex trade*
	14. Boys and young men should be taught from an early age that it is wrong to buy sex*
	15. Buying or selling sex goes against my beliefs*
	16. Men do not have the right to purchase sex from women*
	17. Men who pay for sex do not have the right to demand violent sex*
	18. If selling sex is negatively impacting an individual's health, they should try to stop*
	19. Even if selling sex earns a lot of money, it is not worth the risk of contracting illnesses, such as HIV*
	20. A man does not have the right to demand sex without a condom*
	21. Government agencies should do more to protect people involved in the sex trade*
	22. If someone in my family sold sex, I would be worried about them*
	23. A man does not have the right to own a woman*

**Item requires reverse coding*

Appendix P

Table 7. Summary of Chi Square Difference Test Results

Model	X^2	df	X^2_{diff}	df_{diff}
Model 1 (Factors Freely Correlated)	496.59	227		
Model 2 (Orthogonal Factors)	659.54	230		
Model 3 (Factors Fixed at 1.0)	535.29	230		
Comparison 1 (Model 1 v. Model 2)			162.95*	3
Comparison 2 (Model 1 v. Model 3)			38.70*	3

*Exceeds the critical X^2_{diff} value at $p = .05$

Appendix Q

Table 8. Correlation of Relevant Measures to ATCSE Sub-Scales

Measure	Number of Items	Cronbach's Alpha	Correlations with ATCSE Sub-Scales		
			Power & Control	Social Values	Health & Risk
Empathic Concern	7	.83	$r = .34^*$	$r = -.13^*$	$r = -.09^*$
Global Belief in a Just World Scale	7	.90	$r = .55^*$	$r = -.05$	$r = .20^*$
Attitudes Towards Prostitution Scale	14	.87	$r = .69^*$	$r = .36^*$	$r = .19^*$
Human Trafficking Myths Scale	17	.92	$r = .78^*$	$r = .05$	$r = .39^*$
Sex Trafficking Attitudes Scale					
<ul style="list-style-type: none"> Attitudes Towards Ability to Leave Sex Trafficking 	7	.83	$r = -.71^*$	$r = -.20^*$	$r = -.43^*$
<ul style="list-style-type: none"> Efficacy to Reduce Sex Trafficking 	7	.80	$r = .04$	$r = -.06$	$r = -.01$
<ul style="list-style-type: none"> Knowledge About Sex Trafficking 	5	.89	$r = -.35^*$	$r = -.33^*$	$r = -.54^*$

**Indicates a significant correlation, $p < .05$*

Appendix R

Experimental Vignettes

Instruction: Please carefully read the brief narrative below. Afterward, you will be asked to complete another questionnaire.

Condition 1: Sex Buyer – Violence Present & Sex Seller – Injury Present

In a major U.S. city, police report that there are certain areas where it is common for people to engage in prostitution. This means that in certain neighborhoods, a person could walk down the street and observe two individuals negotiating an exchange of money for sex.

Imagine that you are in the last major city you visited. Late at night, you lose cell signal and find yourself walking through an unfamiliar part of the city. A few blocks ahead there is a 24-hour diner where you can stop to ask for directions. However, to get to the diner you must cross several poorly lit alleys.

Wary of possible danger, you hurry towards the diner. About halfway to the diner you hear a loud sound that startles you. You hear two people shouting, and it sounds like they are nearby. You look towards an alley on the left and see a man arguing with a woman. At first the man is asking to buy sex from the woman. “How much, sweetheart?,” he yells. She tells the man to “piss off”. He is intoxicated and staggers towards her. As she refuses, his anger escalates and he calls her a “filthy whore”. She turns to walk away and he pushes her, causing her to fall and hit her head on the sidewalk. While she is on the ground he kicks her, then gets in his nearby car and drives away. She is unconscious and is unable to get up.

Since the woman is clearly injured, you run to the diner and tell the staff to call 9-1-1. You return to the alley and when police and medics arrive you tell them what you saw. Later you find out that the woman suffered a concussion and internal bleeding from the assault.

Condition 2: Sex Buyer – Violence Absent & Sex Seller – Injury Present

In a major U.S. city, police report that there are certain areas where it is common for people to engage in prostitution. This means that in certain neighborhoods, a person could walk down the street and observe two individuals negotiating an exchange of money for sex.

Imagine that you are in the last major city you visited. Late at night, you lose cell signal and find yourself walking through an unfamiliar part of the city. A few blocks ahead there is a 24-hour diner where you can stop to ask for directions. However, to get to the diner you must cross several poorly lit alleys.

Wary of possible danger, you hurry towards the diner. About halfway to the diner you hear a loud sound that startles you. You hear two people shouting, and it sounds like they

are nearby. You look towards an alley on the left and see a man arguing with a woman. At first the man is asking to buy sex from the woman. “How much, sweetheart?,” he yells. She tells the man to “piss off”. He is intoxicated and staggers towards her. As she refuses, his anger escalates and he calls her a “filthy whore”. She turns to walk away and loses her balance, causing her to fall and hit her head on the sidewalk. The man gets in his nearby car and drives away. She is unconscious and is unable to get up.

Since the woman is clearly injured, you run to the diner and tell the staff to call 9-1-1. You return to the alley and when police and medics arrive you tell them what you saw. Later you find out that the woman suffered a concussion and internal bleeding from the fall.

Condition 3: Sex Buyer – Violence Present & Sex Seller – Injury Absent

In a major U.S. city, police report that there are certain areas where it is common for people to engage in prostitution. This means that in certain neighborhoods, a person could walk down the street and observe two individuals negotiating an exchange of money for sex.

Imagine that you are in the last major city you visited. Late at night, you lose cell signal and find yourself walking through an unfamiliar part of the city. A few blocks ahead there is a 24-hour diner where you can stop to ask for directions. However, to get to the diner you must cross several poorly lit alleys.

Wary of possible danger, you hurry towards the diner. About halfway to the diner you hear a loud sound that startles you. You hear two people shouting, and it sounds like they are nearby. You look towards an alley on the left and see a man arguing with a woman. At first the man is asking to buy sex from the woman. “How much, sweetheart?,” he yells. She tells the man to “piss off”. He is intoxicated and staggers towards her. As she refuses, his anger escalates and he calls her a “filthy whore”. She turns to walk away and he pushes her, causing her to fall and hit her head on the sidewalk. While she is on the ground he kicks her, then gets in his nearby car and drives away. She quickly gets up and runs towards the diner. She is crying but not injured.

When you get to the diner you call the police and make a report of what you saw.

Condition 4: Sex Buyer – Violence Absent & Sex Seller – Injury Absent

In a major U.S. city, police report that there are certain areas where it is common for people to engage in prostitution. This means that in certain neighborhoods, a person could walk down the street and observe two individuals negotiating an exchange of money for sex.

Imagine that you are in the last major city you visited. Late at night, you lose cell signal and find yourself walking through an unfamiliar part of the city. A few blocks ahead there is a 24-hour diner where you can stop to ask for directions. However, to get to the diner you must cross several poorly lit alleys.

Wary of possible danger, you hurry towards the diner. About halfway to the diner you hear a loud sound that startles you. You hear two people shouting, and it sounds like they are nearby. You look towards an alley on the left and see a man arguing with a woman. At first the man is asking to buy sex from the woman. “How much, sweetheart?,” he yells. She tells the man to “piss off”. He is intoxicated and staggers towards her. As she refuses, his anger escalates and he calls her a “filthy whore”. She turns to walk away and loses her balance, causing her to fall and hit her head on the sidewalk. The man gets in his nearby car and drives away. She quickly gets up and runs towards the diner. She is crying but not injured.

When you get to the diner you call the police and make a report of what you saw.

Appendix S

Table 9. Summary of Post-Hoc ANOVA Findings

Group	N	Power & Control	Social Values	Health & Risk	ATCSE Total Score
Political Orientation		$p < .001$	$p = .047$	$p = .030$	$p = .003$
Somewhat Liberal	94	16.28*	14.68	14.46*	45.42*
Very Liberal	77	18.55	18.02*	14.59*	51.34
Somewhat Conservative	56	22.66*	15.92	17.13	55.94*
Very Conservative	38	25.25*	16.91	19.65*	60.16*
Unsure / Don't Know	90	15.59*	13.87*	14.94	43.99*
Other	27	15.82	15.64	16.76	48.86
Gender		$p < .001$	$p < .001$	$p < .001$	$p < .001$
Male	127	24.38*	18.94*	19.39*	62.48*
Female	254	15.44*	13.92*	13.77*	43.25*

**Indicates a significant difference between groups within each column, $p < .05$.*

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