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Exploring resilience: strengths of trafficking survivors in Cambodia

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Abstract

Western literature provides an array of information regarding resilience within at-risk youth. Resilience research within non-Western contexts, and more specifically with exploited youth, is more limited. Despite exploitation, some youth develop a hardy ability to overcome adversity, allowing them more mastery over their environments and even increased psychological steadfastness. This project involved exploring the protective factors of resilience and psychological functioning in Cambodian youth, specifically a group of 24 survivors of sexual trafficking and another group of 24 rural youth without reported exploitation. The ages of participants ranged from 13 to 22 years, with the average age being 15.62 years [standard deviation (SD=2.68)]. Results indicated resilience constructs (mastery and relatedness) correlated with psychological functioning (anxiety and depression), as expected. The sense of relatedness was moderately associated with age. Also, as predicted, the trafficked young women demonstrated more resilience and less pathology. Consistent with previous research, earlier trauma is believed to inoculate survivors of trauma against further stress, mobilize them to better confront adversity and reduce psychological disruptions. Understanding these issues can help in understanding the relationship between resilience factors and psychological functioning as well as the strengths of many trauma survivors. Their strengths are particularly useful for developing effective treatment protocols for traumatized youth from non-Western backgrounds.

Keywords: anxiety; collectivistic; depression; mastery; poverty; relatedness; resilience.

Introduction

Youth in Cambodia continue to experience the lingering effects of sustained violence following 30 years of civil war,

genocide and subsequent political instabilities. Cambodian society is slowly rebounding from the severe blow left by the Khmer Rouge regime; the World Health Organization reports that 75% of the survivors of the Khmer Rouge atrocities suffer from extreme stress or post-traumatic stress disorder (PTSD) (1–3). The trauma and psychosocial disruptions have complex implications. Poverty and family disruptions leave many Cambodian youths susceptible to further exploitation. Cambodia, in particular, has experienced greater trends in sex trafficking and overall complex trauma since the 1990s (4).

Despite the effects of trauma, many youths have emerged with a resilient ability to deal with life's challenges. This internalized capacity to adapt implies the existence of adaptive features. According to Luthar et al. (5), resilience refers to a dynamic process encompassing positive adaptation within the context of significant adversity. Two conditions are implicit within this concept: the exposure to significant adversity and positive adaptation despite assaults to the developmental process.

Background

Resilience in the West

Research in the Western world identifies four waves of resilience study (6). Initial researchers evaluated the etiology of psychopathology underlying at-risk youth, targeting improvements in children's lives (6). The next wave focused on uncovering the processes and regulatory systems that contribute to children's protective factors in development (6). Consistently, 'protective factors' within Western conceptualizations of resilience have included: gender, age, humor, locus-of-control, temperament, family/community support, spirituality, community psychological condition, intelligence, adaptive coping, and realistic appraisals (7). The third wave promoted resilience in prevention and intervention efforts. The fourth wave involves researching resilient individuals' functioning and their relationships with others (6).

More recently, the concept of post-traumatic growth has developed from the accumulation of empirical evidence featuring individuals who have progressed in their lives as a result of traumatic circumstances (8). Post-traumatic growth is the process through which people develop great coping capacities and are subsequently less challenged by trauma (2). While studying Holocaust survivors, Shrira et al. (1) reflected on the commonality of resilience shared by most traumatized individuals. They proposed that, while a majority of traumatized people show resilience, some can go beyond the more common resilience to develop strategies that promote post-

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traumatic growth (1). Mastery and positive changes can allow trauma survivors to confront further adversity. Indeed, relatedness and social support also appear to be strong contributors to growth in those who have been traumatized (1).

Further literature supports the idea that having higher levels of post-traumatic growth is correlated with reduced levels of psychological distress (2). Earlier trauma, in fact, may 'inoculate a trauma survivor against the pathogenic effects of subsequent adversity' (1). Another study found that prior exposure to trauma actually generates post-traumatic growth, rather than pathology (9).

Resilience outside of the Western world

Many researchers now want to understand the deeper implications contributing to 'protection' for young people, particularly those in diverse cultural environments. As studies evolve, researchers hope to develop a better understanding of how processes work within and across levels of analyses to actually produce protective factors in youths from various backgrounds (6). Identifying cross-cultural factors could only serve to broaden treatment modalities and enhance resilience within at-risk populations (10). Furthermore, understanding the competencies in resilient individuals has the potential to aid interventions and prevent undesired outcomes in disadvantaged communities across the world (11).

While studies exist for exploring the resilience in populations in the US and Canada, research within non-Western contexts is quite limited. Ungar (12) provided a culturally and contextually relevant definition of resilience to include:

- exposure to significant psychological and/or environmental adversity;
- the capacity to find health-sustaining resources;
- opportunities to experience well-being; and
- a family, community and culture providing these resources in 'culturally meaningful ways'

In Ungar's work (12) with the International Resilience Project, he noted that the influence of specific resilience characteristics on well-being differs from culture to culture. McGoldrick (13) reinforced the importance of comprehensive approaches that are more responsive to a variety of ethnic, racial and religious identities.

An epidemic of sexual servitude

Briere and Jordan (14) researched a number of protective variables affecting trauma victims in various cultures. Although many factors contributing to resilience have been researched within various groups, the empirical study of underlying resilience factors is deficient within the population of trafficked children. More specifically, measures of self-efficacy, optimism, adaptability, mastery, support and relatedness to others within this group have not been sufficiently documented. Clearly, the need to explore internal and external sources of resilience within the trafficked population warrants further exploration.

One of the most tragic and corrupt enterprises currently affecting this world is the problem of human trafficking. Interpol regards trafficking or sexual servitude as the second largest and fastest growing criminal industry in the world (15). Consequently, many organizations, such as the American Psychological Association (APA), have determined to focus new efforts on combating this gross violation of human rights and deprivation of personal autonomy. As such, the APA has sanctioned new policies to address the needs of those who have been particularly oppressed and marginalized by society, including forming task forces against torture (16), male violence against women (17) and against the sexualization of girls (18). Clearly, the human rights violations against victims of sex trafficking is an evolving area of study within the mental health profession (19).

According to the 2009 US Department of State Trafficking Persons Report, there are at least 1.39 million victims of commercial sexual servitude, both transnational and within countries (20, para. 10) at any given moment. Cambodia is a central source, destination, and transit country for trafficking humans (21). As noted earlier, sexual servitude in Cambodians has increased dramatically since the 1990s (4).

Sex trafficking is noted to be the second most lucrative criminal enterprise after the sale of arms and drugs (22). The number of children involved may be far greater than originally thought, with some studies indicating numbers up to 2.2 million children sold into the sex trade each year, with most of the activity centered in South East Asia (23). The covert nature of this criminal activity precludes an accurate appraisal of its magnitude. In his 2009 book *Sex trafficking*, corporate executive Siddharth Kara reported that commercialized exploitation of sex slaves generated \$51.3 billion in revenues in 2007; these outcomes were the result of millions of consumers purchasing sex from trafficked victims every day (24). Traffickers earned \$35.7 billion in profits, or a global average of \$29,210 per slave, after costs (24, p.19).

The impact of this perverse trade on the physical and mental symptomology of young women is immense. Zimmerman and others (25) assessed 192 females within 14 days of entry into post-trafficking care and found that more than half of them (57%) scored at or above the significant range in the post-trauma symptom subset of the Harvard Trauma Questionnaire (25).

Resilience and therapy of trauma survivors

Recent research has demonstrated how intervention building on resilience diminishes the symptoms of anxiety and depression in individuals exposed to childhood traumas, taking into consideration both childhood abuse and other trauma exposures (26). Those who have been exposed to trauma need help in gaining mastery over traumatic experiences. Trauma survivors have been shown to have increasingly more positive self-perceptions (mastery, personal growth and self-acceptance) and decreased distress (depression and anxiety) when participating in therapeutic disclosure and narrative work (2, 27).

Fava and Tomba (28) found a decreased vulnerability to depression and anxiety following the utilization of 'well-

being therapy' with high-risk populations. This therapy aims at reducing the effects of depression and simultaneously increasing environmental mastery in distressed individuals (28). More specifically, their work demonstrated that the more mastery a young person has or feels, the better able she or he will be in managing everyday affairs, leading to a more internalized locus of control (28). As such, these individuals demonstrated a greater sense of control and mastery over the external world and subsequently less distress in their environment (28).

Additionally, specific interventions that encourage relatedness may also advance at-risk populations' ability to develop resilience. Findings show that high levels of relatedness correlate with lower levels of depression and anxiety (29). Useful interventions incorporating opportunities to increase connectedness to others and to develop further mastery have been shown to lead to reduced pathology (29). Thus, generating support groups or preventative social groups may act as powerful interventions that promote a sense of relatedness, while also providing the space for youth to develop their sense of competency over their environment.

Age appears to be an important influence when exploring the protective factors of resilience. While evaluating aspects of resilience in at-risk youth, studies have found that the critical years for enrichment, self-esteem development and learning success occur earlier than high school, at approximately age 14 or 15 (30). Specifically, research reflects that mastery increases as individuals age and attain more autonomy and opportunity to assert their skills and abilities (31–33). Earlier interventions with trauma survivors and preventative work with those at risk can equip individuals to develop competencies to overcome further obstacles in life.

The purpose of the project

Researchers on this project evaluated the survivors of trafficking within an established Cambodian shelter. Participants also included young women from a rural school, the milieu from which many young women are trafficked and within which 80% of Cambodia's population currently live (3). Researchers studied the differences between those who have been trafficked and who have been receiving trauma support compared with other young women who have not been trafficked in the rural school-setting but who were provided with strong academic enrichment. The purpose of this work was to understand how the young women's psychological symptoms may be inversely proportional to resilience (mastery and relatedness). Additionally, researchers explored the relationship between age and resilience competencies. This study then compared the resilience and psychological functioning of the youths exploited with those at risk for trauma but not previously exposed to sexual servitude. These young women's exposure to sexual servitude and subsequent intervention may serve to increase their mastery, diminish their psychological symptoms and effectively inoculate them to further

disruptions when compared to other young women susceptible to such distress.

Hypotheses

In this study, those individuals with more mastery and relatedness were believed to show less pathology (including depression and anxiety). Higher resilience scores in mastery and relatedness were also expected to correlate with age. Increased resilience was expected to be found with those who have had previous exposure to trauma.

Methods

Approximately 47 young women in Cambodia were asked to participate in this research. The study participants included females ranging in age from 13 to 22 years (average age 15.62 years; SD 2.68). The study was comprised of two groups, including one sampling of 23 adolescents who had previously been trafficked or sexually exploited and are a part of a safe house/shelter environment in Phnom Penh. The shelter program involves a reintegration model that seeks to encourage the holistic integration of mind, body and spirit within their trafficking survivors in Cambodia. Boasting a 79.6% success rate, the program includes both trauma recovery as well as the development of effective living skills (34). The other group involved 24 youth attending a rural school near Tachet village, in northwestern Cambodia. This particular privately-funded school aims 'to educate academically talented and motivated students from low income families' (35). All of the young people attending live in small village homes and have parents who farm. They are provided with study materials, uniforms and backpacks. Additionally, these students receive hygiene products and two meals per day to ensure their success in school. While the young people attending this school may have had poor prior education, those enrolled have been identified through non-linguistic testing as some of the brightest children from the area. As shared by staff in both settings, both samples of young women have the following characteristics in common:

- they are considered socioeconomically poor;
- their families include many siblings and often only one parent;
- they have parents who are involved in farming and agriculture; and
- they have received limited education prior to their enrollment in the programs.

Permission to conduct the study was obtained through the University Human Subjects Research Committee for use of this de-identified data. All the participants had sufficient oral and visual ability to engage in the assessment. This study followed the APA's ethical guidelines to protect the confidentiality of participants' records, including the de-identification of data. The participants in each group were also asked to read and sign informed consent forms, noting their voluntary participation could be withdrawn at any time. Specific measures were used to ensure confidentiality and included the participant's right to request the results of the current study upon completion.

The Institutional Review Board of George Fox University approved this research project. The testing session consisted of the resilience measure in Khmer and the anxiety and depression questionnaire in Khmer. After scoring these measures, one outlier score from the shelter on the resilience measure (raw score=79) was

removed, as it was more than two standard deviations (SDs) below the average ($M=138.58$, $SD\ 22$).

Measures

Trained clinicians administered the tests to participants with the help of Cambodian (Khmer) interpreters and shelter staff. Administrators were trained to reliably administer the test instruments, with the same clinicians involved in hand-scoring the test protocols. Prior to administering the scales, a license was obtained for each of these scales. Additionally, a translation to Cambodian (Khmer) as well as a back-translation was necessary prior to obtaining the license.

Resilience scales for children and adolescents

The Resilience Scales for Children and Adolescents (RSCA) measures three areas of perceived strength and/or vulnerability related to psychological resilience: sense of relatedness, sense of mastery and emotional reactivity. The sense of mastery and sense of relatedness make up the resources index and are considered protective components of resilience (and are the specific factors studied in this research). The vulnerabilities index (though not explored in this study) is the result of the difference between the emotional reactivity subtest and the resource index.

The RSCA Personal Resilience Profile is used as a screening measure for prevention programs and can be used with other youth inventories (or symptom-based measures) to connect the characteristics of resilience with specific symptoms for more strategic treatment planning. The instrument is written at a third-grade reading level and includes 64 items that have been used in individual clinical, school and therapeutic group settings (36). Response options are ordered on a five-point Likert-type scale, starting from 0 (never) to 4 (almost always). The test-retest reliability coefficient was 0.90 for youths aged 15–18 (36).

The Hopkins symptom checklist-25

The Hopkins Symptom Checklist-25 (HSCL-25) was originally designed as a screening assessment tool for anxiety within the Harvard Program in Refugee Trauma (HPRT). The HPRT later translated the HSCL-25 for use in more diverse settings, including Cambodian populations (37). The HSCL-25 contains two sections, assessing for symptoms of anxiety and depression; the total score is the average of the total 25 items, while the anxiety score is the average of the 15 anxiety items (38). Responses are selected for each question, from four categories: 'Not at all', 'A little', 'Quite a bit', and 'Extremely', rated 1–4, respectively (38). The assessment is scored by averaging the scores from both sections.

In a recent study with Cambodians, concordance was found between internalized pathology indicated in diagnostic interviews and the HSCL-25 inventory (37). The HPRT has demonstrated with several populations that the total score from the HSCL-25 is highly

correlated with major depression, as defined by the Diagnostic and Statistical Manual of the American Psychiatric Association, IV Version (38, 39).

Procedure

All participants were informed of confidentiality policies and asked to sign an informed consent form. Administrators were trained to reliably administer the test instruments. The same clinicians also hand-scored the test protocols. The protocols were randomly audited by each of the clinicians to ensure adequate collection reliability and consistency.

At the time of testing, several areas were arranged for testing with small groups of five to ten people per staff member and/or an interpreter. The administrator introduced the test and asked whether the participants had questions, while accompanied by a Khmer translator. All participants were told they would be engaged in a study providing researchers information about how they have learned to grow and develop despite their circumstances. Participants' involvement lasted approximately two hours, with the interpreter's assistance.

Data analyses

Psychological functioning was measured by assessing the participant's psychological distress, as indicated by the anxiety score and the total depression/anxiety score yielded by the HSCL-25. Protective variables were measured by mastery and relatedness standardized scores from the RSCA. For the sake of this study, protective factors were evaluated within the resilience measure (and not the emotional reactivity of the youth).

Various Pearson correlations were explored. For one, the comparison between psychological distress and items on the RSCA (sense of mastery and sense of relatedness) was explored, using correlation analyses. Specifically, correlations between these indicators of resilience were compared with anxiety scores and total depression and anxiety (HSCL-25).

Next, multiple areas of adaptation, including resilience and psychological functioning, were also explored through multiple independent sample t-tests comparing the standard scores on resilience and psychological measures with young women trafficked and those who have no reported abuse and live in a nearby rural province.

Results

The primary variables were age, sense of mastery, sense of relatedness, anxiety, and total anxiety and depression (see Table 1). The total sample consisted of 47 females, coded as shelter for survivors (of trafficking) ($n=23$), and rural school ($n=24$).

Table 1 Descriptive statistics: age, mastery, relatedness, anxiety and depression.

Variables	Age			Mastery		Relatedness		Anxiety		Total anxiety and depression	
	n	M	SD	M	SD	M	SD	M	SD	M	SD
Shelter for survivors	23	17.57	2.48	40.65	6.16	40.65	6.16	20.61	5.18	1.97	0.51
Rural school	24	13.75	0.99	35.54	5.76	32.96	5.51	24.88	5.38	2.29	0.44

M, mean; *SD*, standard deviation.

Table 2 Summary of intercorrelations, means and standard deviations for age, resilience scores and psychological functioning for the total sample.

		1	2	3	4	5
1	Age	—				
2	Sense of mastery	0.416 ^a	—			
3	Sense of relatedness	0.247	0.526 ^a	—		
4	HSCL-anxiety	-0.210	-0.490 ^a	-0.009	—	
5	HSCL-total	-0.179	-0.351 ^b	0.123	0.604 ^a	—
<i>M</i>		15.62	38.71	36.15	22.79	2.14
<i>SD</i>		2.70	6.95	6.88	5.65	0.50

Intercorrelations for total sample ($n=47$). For all scales, higher scores are indicative of more extreme responding in the direction of the construct assessed. ^aCorrelation is significant at the 0.01 level (two-tailed). ^bCorrelation is significant at the 0.05 level (two-tailed). *M*, mean; *SD*, standard deviation.

To understand the relationship between the girls' functioning, various factors from the measures were compared. Table 2 reports the correlations between age, mastery and relatedness (resilience), anxiety and total depression and anxiety in the total sample ($n=47$). Strong significant positive correlations were found between the predicted variables. Factors of resilience (mastery and relatedness) were compared with anxiety and depression symptoms (HSCL-25). Negative correlations were predicted to be found between symptoms on the HSCL-25 when compared with specific factors reflected on the RSCA. A large negative relationship was found between standard scores for sense of mastery (RSCA) and anxiety (HSCL-25), $r=-0.49$ (see Figure 1). A medium negative relationship was found between the standard scores for sense of mastery (RSCA) and total score for depression and anxiety (HSCL-25), $r=-0.35$ (see Figure 2). Additionally, sense of mastery was found to be positively related (medium effect) to age, $r=0.42$ (see Figure 3). Sense of relatedness was not significantly correlated with age, however, nor was it inversely proportional to the psychological symptoms (as predicted).

Various measures were used to further explore the characteristics of resilience of these youths. Of interest was whether

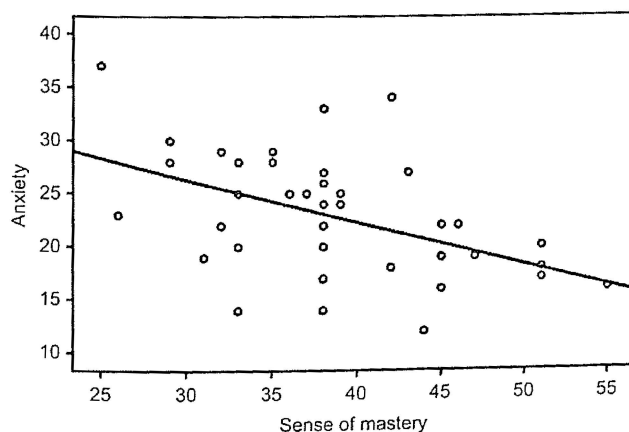


Figure 1 Negative correlation of sense of mastery (RSCA) with anxiety (HSCL-25).

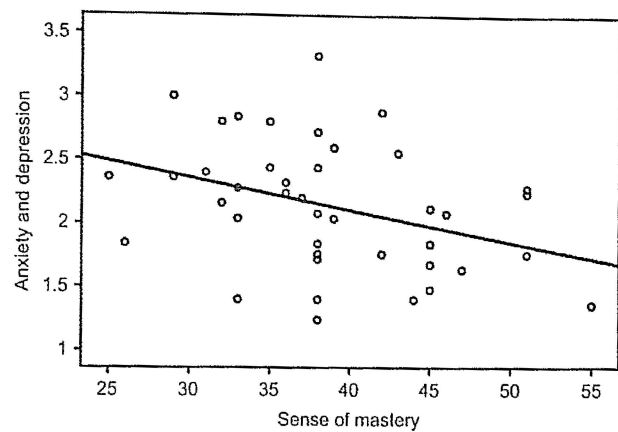


Figure 2 Negative correlation of mastery (RSCA) with total depression and anxiety (HSCL-25).

these young women demonstrated any greater levels of resilience when compared with other young Cambodian women of a similar age. The test scores of the young women trafficked were compared with those from a cohort in a rural province of Cambodia. Though the measure of resilience used (RSCA) has not been normed with this population, the scores are useful in comparing the young survivors performances with those who have not been trafficked. Additionally, the youths' psychological functioning was explored from the depression and anxiety measure (HSCL-25) normed on a Cambodian population.

Multiple independent sample *t*-tests revealed significant differences in resilience scores and psychopathology between the groups of young women. Overall, the scores for sense of mastery (RSCA) for trafficking victims ($M=43.18$; $SD=6.08$) were significantly higher than those of the young women in the rural school setting ($M=35.54$; $SD=5.76$), $t(45)=48.64$, $p<0.001$. The young female survivors demonstrated significantly higher sense of relatedness (RSCA) scores ($M=40.65$; $SD=6.16$) than the unexploited young women ($M=32.96$; $SD=5.51$), $t(39)=17.58$, $p<0.001$. The mean scores for the young women's overall depression/anxiety from the shelter

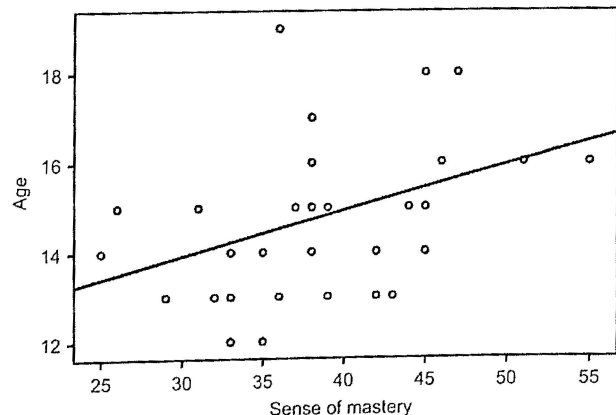


Figure 3 Positive correlation of sense of mastery (RSCA) with age.

for trafficked victims ($M=1.97$; $SD\ 0.51$) were significantly lower than those females in the rural school setting ($M=2.29$; $SD\ 0.44$), $t(45)=5.30$, $p<0.05$.

Conclusions

Research to date provides comprehensive conceptualizations of resilience in Westernized cultures. Such research has examined resilience as a tool of prevention and intervention (i.e., encouraging the development of protective/resilient characteristics pre-trauma) and has identified compositional elements of resilience as they exist in Western cultures. The current study sought to build upon existing research by extending the examination of resilience beyond the Westernized world to evaluate the relationships between resilience and psychological functioning as well as resilience and age factors. In order to evaluate these relatively under-researched explorations of protective factors in young people, the current study further examined the relationships between resilience and psychological functioning in Cambodian children who have been sexually exploited and in those who have not been exposed to this trauma. It is particularly important to address the lack of research on the survivors of trafficking and the traumatic impact currently affecting developing (and modern) countries alike. Three principal hypotheses were examined in this study.

The first hypothesis suggested that individuals reporting higher levels of mastery and relatedness (both elements of resilience) would show less depression and anxiety. Past studies have shown that when individuals have a sense of mastery and competence in managing their environment, their overall well-being improves (28). While a sense of relatedness with others and trusting relationships has shown in research to serve as a buffer against distress (28), this study did not find relatedness to be as important a variable as mastery. As in past research, findings from the current study found that features of mastery correlate with the experience of protective factors in at-risk children. Research suggests useful treatment interventions can include interventions with increasing mastery and competency, leading to reduced psychological symptoms (29).

The second hypothesis reflected that older youth would demonstrate higher scores in mastery and relatedness. Research conducted in Western cultures indicates that higher levels of mastery have been found in older children and adolescents as they attain more autonomy and opportunity to assert their skills and abilities (31–33). A medium effect was found between relatedness and age. Findings from the current study coincide with the existing research, suggesting that individuals in non-Western cultures may develop heightened mastery as they age. Age did not appear to be related to sense of relatedness. Perhaps the young women – both the younger and older teens – found support in their relationships with others. Regardless of age, it is likely that both younger and older girls could develop this aspect of resilience.

The third hypothesis involved exploring the differences in resilience scores (relatedness and mastery) and psychological functioning (anxiety and depression) between two groups.

These groups include a collection of young women trafficked and one group that has not been reported to be exploited. When comparing these two groups, the young women who have had previous exposure to trauma had higher scores for mastery and relatedness and diminished psychological functioning. This hypothesis was confirmed and supports previous research. These young survivors developed more resilience and were protected against anxiety and depression over those who have not been traumatized. As noted earlier, prior trauma experience actually produced resilience and growth rather than pathology (9).

Implications

The findings from this study provide several important implications, particularly as they relate to a growing interest in cultivating resilience and developing treatment modalities with at-risk youths. For one, mastery appears to be much more closely related to improved psychological functioning in young people from this developing country. Additionally, past research holds that resilience can be promoted through intentional and specific interventions (28); therefore, specific interventions should be implemented to promote the development of mastery in at-risk populations. Findings from this study suggest that strategic interventions that center on the development of mastery may augment resilience.

Furthermore, findings from this study suggest that the timing of the implementation of an intervention is important. Younger children may be less likely to experience mastery and resilience than older youths (28). Therefore, interventions may be best utilized if implemented at an early age to defend against the harmful effects of trauma and adversity. Such interventions should center on age-appropriate methods of cultivating increased psychological functioning, mastery and competence, in addition to engendering overall resilience.

The outcomes from this study have important implications for individuals impacted by trauma. Previous research with at-risk females has indicated that those traumatized might be expected to perform more poorly on measures of resilience and psychological functioning because of their greater 'trauma load' (40, p. 1566). This study, however, predicted that the young women from the trafficking shelter within this developing country would demonstrate post-traumatic growth from their stressful experiences. In fact, those who had been exposed to more trauma actually performed better on both measures of psychological functioning (anxiety and depression instruments) as well as on a measure of their resilience (RSCA: sense of mastery). The academic support delivered to those enrolled at the rural school did not appear to safeguard the young women's sense of mastery. While they had many resources, including entry as the brightest students in (this rural) area. These young women's resources did not safeguard their psychological functioning and resilience. While the young women from the shelter demonstrated dynamic resilience, the young women from the rural school were revealed to be at greater risk of psychological difficulties and diminished resilience.

At a more global level, this research provides unique insight on how resilience presents itself in at-risk Cambodian youth. For years, mental health professionals have invested

in the development of treatment models that are effective with individuals from diverse backgrounds (12). The current research adds to this mission by providing a clearer picture of the relationship between mastery and psychological functioning in these young people from a developing country. Surely, this can encourage those involved in service provision with similar young people to encourage mastery and resilience in various areas – whether in psychological health, academic functioning, career development, etc. Those who have academic support may need more than hygiene products, school supplies and food to excel in other domains of functioning.

Limitations

One weakness of the study is related to cultural variants; more specifically, the work was conducted with a relative subset of the Cambodian population (including young women survivors of trafficking and young women from rural farming province) and may not be generalizable to all trauma victims. Additionally, the sample was relatively small (with approx. 23–24 youths in each group) and may not be generalizable to other populations of trauma victims.

Furthermore, while the study found the previously exploited youth to be more resilient, it is unclear whether their increased mastery and relatedness is a result of their previous exposure to trauma, their intervention or their older ages on average ($M=17.57$; $SD\ 2.48$). The young women from the rural school were younger ($M=13.75$; $SD\ 0.99$). Their age may have accounted for their immaturity and/or more limited problem-solving, leading to decreased levels of mastery and relatedness to others. They also may have had fewer experiences with which to feel competent, while the previously trafficked young women may have increased mastery due to their growth from previous trauma experiences. The young trafficking survivors may also have better supports in place, after having been rescued and currently receiving intervention. Various services within the shelter were potentially enough to equip the survivors with new skills to move forward in their lives. Further research is needed to explore which of these factors accounts more for the success of the young survivors.

Researchers were limited in their familiarity of Cambodian culture, so they may not have had a comprehensive understanding of the unique needs and experiences of these participants. Thus, future research should involve more lengthy immersion within the culture. Additionally, experimenters used some measures not yet normed on the population examined. Though use of these scales is helpful in contributing to norm research, the present results may be skewed. Further beta testing and development of scales within a Cambodian and broader Southeast Asian context may be more beneficial to evaluating resilience in this culture.

Future research

The present study successfully contributed to the developing field on resilience by examining the characteristics of resilient individuals in the developing country of Cambodia. Certainly,

the findings from the study serve as instrumental building blocks for potential services, interventions and preventative measures for disadvantaged communities in other non-Western settings. Before these services, interventions and preventative measures can be adequately addressed, however, the completion of future research is necessary.

Far more study is needed to understand the diverse nuances of resilience in individuals. Minority and multicultural norms provide varied contexts for specific characteristics of resilience to be revealed. Ungar (12) states future interventions in culturally diverse populations will find success in fostering resilience to the extent they accomplish several key steps. For one, researchers must become familiar with culture-specific definitions of resilience and evaluate the outcomes of resilience research by comparing and contrasting norms of the examined culture with other studies on resilience within other cultures and contexts. Since no cultures are completely alike, further study on resilience and sex-trafficking may examine how comparable (at-risk) populations around the globe are in their experience of psychological distress, mastery and relatedness. More specifically, future studies may expand upon the present study by surveying Cambodian sex-trafficking survivors with those living in the USA. Completion of potential work could provide insight into how resilience is cultivated within survivors and populations at risk of trafficking in various contexts.

Future examiners also should introduce interventions in multiple settings to promote understanding of the context of and expression of various resilience factors (12). Once again, Luthar et al. (5) define resilience as a positive adaptation from adversity that is derived from a dynamic process. When considering the dynamic nature of resilience, further study could explore the utility of certain interventions at different points in time and in various settings. Interventions can bolster resilience in these youths when applied in multiple forums, whether in school, home or the community (12). Relevant interventions must be centered not only on engendering resilience, but also on helping at-risk populations access resources made available to them in these various settings (12).

Additionally, further evaluation should consider the relationship between aspects of resilience on culturally-specific health outcomes (12). Through such work, mental health professionals can ascertain the most meaningful and positive health indicators pertinent to the groups evaluated. What may be considered 'healthy' in one population may manifest very differently in another culture. As a result, interventions should be tailored to have the greatest impact on the largest amount of people within a specified cultural context.

Certainly, the findings from this study have important implications for individuals already impacted by the damaging effects of trauma. For instance, this study has demonstrated that a person's propensity to be resilient against trauma is dynamic and is influenced by factors such as age and prior exposure to trauma. Surprisingly, those exploited and exposed to the greatest trauma were not at greatest risk; they

actually performed better than those not directly impacted by sexual servitude. As such, caution should be given before assuming who is most vulnerable, as those with resources may or may not still be at risk for psychological disruptions and less resilience. In this study, the young women in the shelter were shown to have a capacity to overcome their hardships – to develop a rich capacity for growth and endurance in both psychological well-being and mastery in their worlds. As young women survivors appear to have been strengthened, either as a result of their experiences and/or through participation in therapy and other interventions, further work should center on empowering survivors to develop new skills and resilience factors. Additionally, their strengths should be explored longitudinally to assess the sustainability of their resilience over time. To be sure, new services in Cambodia and other cultures should focus on educating individuals susceptible to sex-trafficking and other exploitation, helping survivors to navigate available resources to build a reservoir of nourishing and safety supports. Indeed, such work would contribute to a more comprehensive understanding of the adaptable, enduring human spirit across various environments and cultures.

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