



Original article

## Effects of a Social Empowerment Intervention on Economic Vulnerability for Adolescent Refugee Girls in Ethiopia



Lindsay Stark, Dr.P.H.<sup>a,\*</sup>, Ilana Seff, M.P.H.<sup>a</sup>, Asham Assezenew, M.A.<sup>b</sup>, Jennate Eoomkham<sup>b</sup>, Kathryn Falb, Sc.D.<sup>c</sup>, and Fred M. Ssewamala, Ph.D., M.S.W.<sup>d</sup>

<sup>a</sup> Department of Population and Family Health, Columbia University Mailman School of Public Health, New York, New York

<sup>b</sup> International Rescue Committee, Addis Ababa, Ethiopia

<sup>c</sup> International Rescue Committee, New York, New York

<sup>d</sup> Columbia University School of Social Work, New York, New York

*Article history:* Received January 25, 2017; Accepted June 22, 2017

*Keywords:* Social empowerment; Economic vulnerability; Refugees; Ethiopia

### A B S T R A C T

**Purpose:** This article examines the effects of a girls' social empowerment program, Creating Opportunities through Mentoring, Parental Involvement and Safe Spaces, on economic vulnerability of participating adolescent refugee girls in Ethiopia.

**Methods:** Adolescents aged 13–19 years from three refugee camps were randomly assigned to either a treatment (n = 457) or control (n = 462) condition. Participants in the treatment condition received 40 fixed-curriculum, mentor-facilitated sessions once a week over a period of 10 months, whereas those in the control condition were not exposed to the curriculum. Caregivers of girls in the treatment arm also participated in 10 discussion sessions held once a month over the same period, where they learned about issues relevant to adolescent girls' well-being and safety. Data were collected from adolescent girls at baseline and approximately 10 months following intervention initiation.

**Results:** Using logistic regression modeling, we found that, following the intervention, girls in the treatment arm were no more or less likely than those in the control arm to attend school, work for pay, work for pay while not being enrolled in school, or engage in transactional sexual exploitation.

**Conclusions:** Findings suggest that stand-alone social empowerment programs may not reduce economic vulnerability for adolescent girls without simultaneously implementing economic empowerment programs or taking additional measures to address broader structural barriers.

© 2017 Published by Elsevier Inc. on behalf of Society for Adolescent Health and Medicine.

### IMPLICATIONS AND CONTRIBUTION

Findings offer insight into limitations of, and opportunities to improve, female empowerment programs to successfully attend to adolescent girls' well-being in humanitarian settings.

**Conflicts of Interest:** The authors have no conflicts of interest to disclose.

**Disclaimer:** Publication of this article was supported by the International Center for Child Health and Development (ICHD) at Washington University in St. Louis; the Dean's Office, Columbia University School of Social Work; and the Dean's Office, Brown School of Social Work, Washington University in St. Louis. The opinions or views expressed in this supplement are those of the author and do not necessarily represent the official position of the funders.

The views expressed and information contained in this article are not necessarily those of or endorsed by UK Department for International Development (DFID), which can accept no responsibility for such views or information or for any reliance placed on them.

Clinical Trials Registration: NCT02384642.

\* Address correspondence to: Lindsay Stark, Dr.P.H., Department of Population and Family Health, Columbia University, 60 Haven Avenue B-4, New York, NY 10032.

E-mail address: [Ls2302@cumc.columbia.edu](mailto:Ls2302@cumc.columbia.edu) (L. Stark).

In many cultures around the world, men and women are afforded different advantages that disproportionately favor men and marginalize women [1]. Reinforced by long-standing social norms and gender constructs, such inequality undermines female autonomy and excludes women and girls from decision-making processes [2]. Humanitarian emergencies, plagued by economic and social collapse, can further exacerbate these inequalities. Limited economic opportunities and social marginalization compound risks for women and girls, as they often face new and distinct hardships that threaten their safety, health, and well-being [3].

Gender-based violence (GBV) is an especially critical threat to women and girls' well-being in humanitarian settings and has garnered increasing attention from actors in the humanitarian sphere [4]. The negative physical, mental, and social health outcomes associated with experiencing GBV are widely established [5–7]. GBV increases risk of HIV, sexually transmitted infections, unwanted pregnancies, and pregnancy complications; and in conflict and postconflict settings, it has also been associated with forced pregnancy and elevated rates of traumatic fistula [8,9]. Importantly, these negative health outcomes may go untreated in humanitarian crises due to the weakened health services and crumbling health infrastructure characteristics of these settings [10].

Although adolescent girls in emergencies have received greater attention in the last two decades, their particular adversities continue to go largely unaddressed in humanitarian settings due to their younger age and gender [11]. Emergencies may weaken support mechanisms for already vulnerable families, increasing the likelihood that adolescent girls may be forced to leave school, marry early, and/or enter the labor workforce [12]. It is not uncommon in such circumstances for girls to be coerced or forced to engage in informal work activities that are exploitative and poorly compensated, such as transactional sex [13–15]. As a result, adolescent girls in emergencies have been shown to be at increased risk of having unprotected sex and unwanted pregnancies and of contracting sexually transmitted infections [16].

Girl empowerment programs have become increasingly popular for improving the lives of young females during crises [17]. These social empowerment programs typically include educational sessions, peer relationship building, and mentorship. Program curricula are generally intended to be culturally sensitive, while addressing female-specific issues relating to safety and wellbeing, such as child marriage, pregnancy, female genital mutilation (FGM), GBV, and seeking support services in the community. Sessions may be held in "safe spaces," purposively selected locations not accessible to boys or men, and intended to provide a physical, emotional, and psychological safe haven for girls to congregate. Additional components may include skills- and knowledge-based trainings for caregivers. Ultimately, these programs are intended to improve girls' confidence and assertiveness and lower their risk of violence and exploitation.

Although acknowledging that the primary intended outcomes of these programs may not necessarily be economic empowerment, there are questions about whether these programs may still afford some protection for indicators of economic vulnerability. Given that such programs often address healthy relationships, decision-making power, and financial planning, it is conceivable that empowerment programs may reduce some aspects of economic vulnerability. Threats to physical safety and financial stability interact in meaningful ways. For example, empowerment programs that directly curb GBV risk factors may have residual impacts on girls' financial empowerment. Indeed, evidence suggests that girls who marry during adolescence are more financially dependent on their husbands and may perceive this reliance as justification for experiencing abuse [18]. Empowerment programs that transform social norms around child marriage may, in turn, reduce girls' risk of being married at a younger age, making them more likely to complete their education and exercise financial autonomy. These programs may be particularly successful if caregivers are involved in programming and encouraged to support educational attainment.

This article evaluates the effect of an adolescent social empowerment program on economic vulnerability indicators for

refugee girls. In particular, we compare changes in schooling, labor, and engagement in transactional sexual exploitation between the intervention and control arms of female adolescents residing in refugee camps in Ethiopia. We hypothesized that program participation would positively affect girls' engagement in these activities, in other words, that the intervention would increase schooling, reduce adolescent/child labor, and decrease adolescent engagement in transactional sexual exploitation.

## Methods

### Study setting

Tens of thousands of refugees from Sudan, South Sudan, and neighboring countries have arrived in Ethiopia to escape protracted conflicts in the region [19]. The setting for this study comprises three refugee camps in the Benishangul-Gumuz Region of Ethiopia: Sherkole, Tongo, and Bambasi. As of September 2015, approximately 38,000 ethnically and linguistically diverse individuals, primarily from Sudan and South Sudan, were recorded to be living in these settlements. Exposure to sexual violence prior to settling in Ethiopia and early or forced marriage were identified as salient threats to adolescent girls' well-being and safety [19]. In response to these risks, the International Rescue Committee (IRC) developed and implemented the Creating Opportunities through Mentoring, Parental Involvement and Safe Spaces (COMPASS) program to help girls build (primarily social) assets that could be used to prevent and respond to violence as well as engage in mentored learning and peer interaction in "safe spaces" [20].

### COMPASS program

COMPASS was administered in three country sites—Ethiopia, the Democratic Republic of Congo, and Pakistan—in order to examine a life skills and mentoring program for female adolescents across multiple contexts. The research design differed across country sites in order to offer complementary insights into COMPASS's effectiveness. In Ethiopia, the research aim was to assess the overall effectiveness of COMPASS on improving girls' safety and well-being; in the Democratic Republic of Congo, we sought to evaluate the incremental effectiveness of a parental curriculum in addition to the adolescent programming; and in Pakistan, the goal was to assess the overall acceptability and feasibility of COMPASS. Given the different aims in each setting, we draw on the Ethiopia data for this article, as the trial best able to address the research question posed previously.

The program structure involved grouping approximately 20–25 girls of similar age [13–14 and 15–19] and common language with a female mentor aged 20–30 years. Girls attended 90-minute sessions once a week for 10 months and discussed life skills content ranging from interpersonal disagreement resolution to reproductive health, gender norms, and safety planning. Curriculum content relevant to economic vulnerability included material on money management, savings plans, and decision-making. All sessions were held in traditional huts that were designated safe spaces for women and girls. Additionally, COMPASS engaged girls' parents and/or caregivers to support their understanding of existing risks for girls, as well as exploring together how caregivers might protect girls within their environment. Male and female caregivers were eligible for inclusion if they had at least one girl participating in the COMPASS

programming; caregivers for all 457 girls in the treatment arm were invited to participate. Caregivers attended a discussion group once a month for 8 months, where content focused on positive relationship building, empathetic communication, nonviolent discipline methods, and specific developmental and cultural issues experienced by adolescent girls. These 90- to 120-minute sessions were facilitated by the IRC program officer along with a translator and included 20–25 caregivers per session.

#### *Randomization, sample size, and data collection*

The baseline survey was administered to 919 refugee adolescent girls living in the three camps from July 2015 to September 2015. Girls were selected for inclusion if they fell within the 13- to 19-year-age range and had verbal proficiency in one of four languages commonly spoken in the camps [21]. Randomization to the intervention or control arm took place at the “group” level. Groups consisted of 20–25 girls that lived within close proximity to one another or spoke the same language. Additionally, group assignment was stratified by age (13–14 years and 15–19 years). A total of 62 groups were assembled across the three refugee camps, and each group was randomly assigned to the intervention ( $n = 31$  groups; 457 girls) or wait-list arm ( $n = 31$  groups; 462 girls). To minimize spillover effects, girls residing in the same dwelling were assigned to the same group; if the girls were of different age levels, their respective groups were paired and randomized to the same study arm. Thirty-eight participants were lost to follow-up at end line data collection, which took place from July 2016 to September 2016. End line data collection began within 1 month after completion of the intervention. Our final sample included 881 respondents interviewed at baseline and end line, with 428 and 453 girls in the control and intervention arms, respectively. All data were collected using Audio Computer-Assisted Self-Interview Software (ACASI) [21].

#### *Ethics statement*

All surveys were administered using ACASI in a private location in the camp. For unmarried girls aged 13–17 years, we obtained informed consent from a parent or guardian prior to approaching the minor for her assent. All other participants were consented directly. Study protocols, including consent procedures, were approved by Ethiopia’s Administration for Refugee and Returnee Affairs, the Institutional Review Board of the Columbia University Medical Center (Protocol #AAAP6855), and IRC’s Institutional Review Board (#WPE 1.00.003).

#### *Outcomes*

Our analysis looks at the effect of the intervention on four economic outcomes: (1) being enrolled in school during the most recent school year; (2) working for pay in the previous 12 months; (3) experiencing transactional sexual exploitation in the previous 12 months (“Has anyone ever given you money, food, gifts or any favors to have sex with them? Has this occurred in the past 12 months?”); and (4) a final outcome characterized by not being enrolled in school in the most recent school year and working for pay in the previous 12 months. The first three outcome variables were each constructed using two survey questions. For example, respondents were first asked “Have you ever attended school”? Those who answered “yes” were then

asked if they “were enrolled in school during the most recent school year”. Respondents who answered “no” to either question were assigned “no” for the outcome variable; those who responded “yes” to both were assigned “yes.” Compensated work activities included providing housekeeping or childcare for another family, engaging in farm work, making handicrafts, collecting firewood, working in a nonfarm enterprise such as a tea or cookies shop, and other.

#### *Statistical analyses*

We first summarized demographic characteristics and economic outcomes of interest at baseline and checked for differences between treatment and control arms. Logistic regression models were estimated separately for each of the four economic outcomes of interest. All models included a binary treatment variable signifying whether a respondent participated in the intervention and adjusted for the outcome of interest at baseline. Statistical significance was prespecified at  $\alpha < .05$ , and listwise deletion was used for missing data.

For outcomes (1) and (2), being enrolled in school during the most recent school year and working for pay in the last 12 months, we hypothesized that a girl’s baseline exposure to an outcome of interest might modify the effect of the intervention at end line. For example, the intervention might have little effect on schooling at end line for girls already enrolled in school at baseline; but the intervention might increase the likelihood that non-schoolgirls will resume their schooling at end line. We tested this hypothesis by estimating bivariate logistic models separately according to an individual’s status at baseline for the outcomes of interest. Statistical significance of modifying effects was tested using an interaction term. For outcomes (3) and (4), transactional sexual exploitation and working for pay without attending school, we were unable to stratify our analyses by baseline status due to small sample sizes. Standard errors for all models presented are clustered at the group level of randomization, which also served as the COMPASS meeting group for girls in the intervention arm.

## **Results**

#### *Basic characteristics and outcomes of interest at baseline*

Table 1 summarizes basic characteristics and economic empowerment indicators at baseline for the full sample and across control and treatment arms. The average respondent was 14.6 years old at baseline and had completed fewer than 4 years of school. In the full sample, 65% and 72% of girls’ fathers and mothers lived in the household, respectively. Thirty-six percent of the sample lived with an intimate partner at baseline, and 22% reported having ever had sex. Table 1 also demonstrates baseline balance across control and treatments arms. Girls in the intervention arm were more likely to have their mother living in the household than were girls in the control arm. Statistically significant differences in treatment group were also found in Bambasi and Tongo camps.

#### *Program impacts on economic activity and vulnerability*

Overall, as shown in Table 2, we find that the intervention did not impact the economic outcomes of interest. For example, girls in the treatment arm had approximately equal odds compared to

**Table 1**  
Basic characteristics and outcomes of interest at baseline

	Full sample (SD)	Control (SD)	Intervention (SD)
<b>Demographic characteristics</b>			
Age at baseline	14.60 (1.51)	14.62 (1.51)	14.58 (1.52)
<b>Camp</b>			
Bambasi	.37 (.48)	.32 (.47)	.43** (.50)
Sherkole	.33 (.47)	.36 (.48)	.32 (.47)
Tongo	.29 (.45)	.32 (.47)	.26* (.44)
Highest grade completed	3.73 (1.72)	3.76 (1.74)	3.70 (1.71)
Mother lives in household	.72 (.45)	.68 (.47)	.76* (.43)
Father lives in household	.65 (.48)	.67 (.47)	.63 (.48)
Live with an intimate partner	.36 (.48)	.35 (.48)	.36 (.48)
Ever had sex	.22 (.42)	.20 (.40)	.25 (.43)
<b>Outcomes of interest</b>			
Enrolled in school, most recent school year	.57 (.50)	.55 (.50)	.59 (.49)
Worked for pay, last 12 months	.39 (.49)	.41 (.49)	.37 (.48)
Housekeeping/childcare for other family	.15 (.36)	.17 (.37)	.14 (.34)
Farm work	.07 (.25)	.06 (.24)	.07 (.26)
Handicrafts	.12 (.33)	.12 (.33)	.12 (.32)
Collecting firewood	.03 (.18)	.04 (.21)	.02 (.15)
Nonfarm enterprise	.02 (.13)	.02 (.14)	.02 (.12)
Other work for pay	.02 (.14)	.02 (.15)	.02 (.13)
Engaged in transactional sex, last 12 months	.08 (.27)	.07 (.25)	.09 (.28)
Working for pay and not in school	.11 (.32)	.12 (.33)	.11 (.31)
Observations	881	428	453

T-test of difference between control and intervention groups is statistically significant at \* $p < .05$ , \*\* $p < .01$ .  
SD = standard deviation.

girls in the control arm of working for pay at end line (adjusted odds ratio [aOR]: 1.04, 95% CI: .73–1.48). We observe moderate trends in the hypothesized directions for schooling and transactional sexual exploitation (aOR = 1.21 and aOR = .62, respectively), but end line measures did not show a statistically significant effect of the intervention on economic vulnerability.

We also examined the effect of the intervention on schooling and working for pay at end line, based on a girl's engagement in either of these activities at baseline. We find no evidence that schooling or working for pay at baseline modified the effect of the intervention on these respective outcomes at end line (see Table 3). In other words, the intervention did not seem to keep girls in school, nor influence girls not in school to return to their education.

## Discussion

This study is, to our knowledge, the first to assess the impact of a female adolescent empowerment program on economic vulnerability in a humanitarian context. We found no evidence that the program significantly reduced girls' economic

vulnerability. Girls who received the intervention were no more or less likely than those in the control arm to (1) attend school; (2) work for pay; (3) work for pay while not being enrolled in school; or (4) engage in transactional sexual exploitation.

Our analysis found that a stand-alone social empowerment program had no effect on economic vulnerability among adolescent girls. One of the stated outcomes of COMPASS was to "increase girls' human, social, physical, and financial assets to protect themselves from violence and respond to threats or incidents of violence" (including transactional sexual exploitation), yet this goal was not borne out by the data [20]. The main outcomes evaluation of this same intervention found no evidence that COMPASS reduced past-year exposure to physical or sexual violence for participants (although there were some significant changes in some of the other secondary outcomes) [22]. One might usefully draw on a social-ecological model to help situate these results in a broader context to understand constraints that may have impeded success toward this outcome [23]. The Government of Ethiopia is among the more progressive host countries for refugees and maintains an open-door policy for refugees. The International Labour Organization and the United Nations High Commissioner for Refugees have partnered with Administration for Refugee and Returnee Affairs to promote self-employment in camps and surrounding host communities [24]. At the same time, the country maintains reservations to the 1951 Convention, notably to Articles 17–19 (right to wage-earning and self-employment as well as liberal professions), which restrict refugees from engaging in any self-reliance activities [25]. Additionally, the overall well-being of refugees is of concern. UNHCR estimates that some 50% of school-age refugee children are out of school (46% at the primary level and 93% at the secondary level). Malnutrition rates remain high and have likely been exacerbated by the current droughts. An estimated 95% of refugee youth are anticipated to be unable to access needed nutrition programs in the coming year [25].

Such contextual realities should serve to temper expectations that a primarily social empowerment program will be able to have the desired effects on financial assets and reducing economic vulnerabilities. If a girl learns about financial planning and savings but has no access to capital, for example, it is unlikely that we would expect to see behavior change around income generation in the form of working for pay or transactional sexual exploitation. Indeed, girls may be making the only "choices" they can for economic survival. This relationship is further supported by our findings that reported transactional sexual exploitation at baseline was not correlated with reported transactional sexual exploitation at end line. This noncorrelation suggests that a girl's participation in risky sexual behavior is driven by external factors, rather than by any personal beliefs or conceptions of empowerment that might make her more susceptible to such behavior [13,26–28]. In a similar vein, even if both caregivers and girls acquire an increased appreciation for the long-term benefits

**Table 2**  
Intent-to-treat analysis for outcomes of interest at end line, adjusted odds ratios

	Enrolled in school, end line	Work for pay, end line	Transactional sex, end line	Working, not in school at end line
Intervention	1.21 (.80–1.82)	1.04 (.73–1.48)	.62 (.30–1.26)	.92 (.54–1.58)
Baseline status	1.62*** (1.31–2.02)	1.35* (1.00–1.80)	2.43 (.86–6.92)	1.61 (.87–2.97)
Observations	737	748	617	737
Chi-squared	46.66	21.92	14.33	51.81
p value	.000	.009	.082	.000

Standard errors are clustered at the level of group randomization. 95% confidence intervals in brackets; \* $p < .05$ , \*\*\* $p < .001$ .

**Table 3**

Intent-to-treat analysis for schooling and working for pay at end line, stratified by baseline status—odds ratios

	Enrolled in school, end line		Working for pay, end line	
	Not enrolled in school, baseline	Enrolled in school, baseline	Not working for pay, baseline	Working for pay, baseline
Intervention	1.36 (.85–2.18)	1.10 (.69–1.74)	1.25 (.77–2.02)	.82 (.53–1.25)
Observations	362	475	535	346
Chi-squared	.81	.87	.81	.87
p value	.369	.352	.369	.352

Standard errors are clustered at the group level of randomization. 95% confidence intervals in brackets.

of schooling for girls through a program like COMPASS, their short-term obligations to meet the family's basic needs may take precedence.

In fact, pressure to contribute to their household's income is a primary stressor cited by female adolescents in refugee settings, especially among girls not attending school [29]. Economic empowerment interventions, such as microfinance, cash transfer, and asset-based programs, can alleviate families' economic hardships through an infusion of household financial assets and resources. When implemented in conjunction with financial literacy curricula, such programs have been shown to increase school attendance and personal savings among adolescent girls [29,30]. Furthermore, when these programs are combined with social empowerment programs that aim to strengthen girls' confidence, such as COMPASS, they can increase adolescent girls' bargaining power, decrease their financial dependence on others, and reduce engagement in transactional sexual exploitation [31–33]. As such, social empowerment programs for adolescent girls may prove most effective when implemented alongside programs that empower households economically.

Again, drawing on a social-ecological model, in order to see the kinds of sustainable changes that IRC and other actors are trying to effect for girls, programmers and policy makers may also need to simultaneously address wider structural constraints at the meso-, exo-, and macro-systems level [22]. Working with policymakers to broaden refugees' legal opportunities for formal work could potentially increase the effectiveness of empowerment programs. Turkey's early 2016 decision allowing Syrian refugees to obtain work permits provides a relevant recent example of policy reform to reduce barriers around refugee livelihoods. Additionally, livelihoods programming must promote skills that are relevant to a particular humanitarian context [34]. It is recommended that skills training programs in refugee settings be preceded by an assessment of labor markets to ensure program implementers equip girls with appropriate skill sets for that particular setting [35].

Stark et al. suggest that female empowerment programs such as COMPASS might also impact greater change around violence outcomes if they simultaneously engage males in the community [22]. Female social empowerment is believed to be a critical component to ensuring the safety and well-being of adolescent girls in crises. The findings from our analysis and those presented in Stark et al. do not necessarily suggest that female empowerment programs like COMPASS should be abandoned; in fact, they have shown promise in reducing violence exposure for adolescent girls in nonhumanitarian, low-resource settings [36]. However, if the humanitarian response does not also reduce barriers and improve broader safety nets for adolescent girls and their families, the humanitarian sector may continue to fall short of its goals to ensure the safety and wellbeing of women and girls [14,37].

### Limitations

This study has a few limitations worth noting. First, the broader evaluation of COMPASS was designed to assess the intervention's effect on violence- and safety-related outcomes; it was not designed to evaluate the intervention's effect on changes in schooling or work engagement according to baseline status. Subsequently, our stratified models have restricted statistical power. Second, to the extent possible, spillover was controlled for by separating intervention and comparison groups based on geographic proximity, language, and ethnicity; however, we acknowledge that we were likely unable to completely account for potential contamination across groups. Third, a limited number of indicators capturing economic vulnerability were included in the baseline and end line surveys, given that economic vulnerability was not the primary target outcome for the COMPASS intervention. Future evaluations of such empowerment programs might benefit from incorporating additional measures of financial vulnerability, economic coercion, gender disparities in chores or resource allocation for girl and boy children, and income generation in order to more comprehensively assess the relationship between female empowerment and economic safety in humanitarian settings.

Humanitarian actors have placed increasing emphasis on female empowerment programs within broader response efforts in order to reduce physical, psychosocial, and economic vulnerabilities among adolescent girls. Although these programs have been shown to positively impact well-being in some contexts, our findings suggest such interventions may need to be integrated alongside economic empowerment programs and additional structural interventions [36,38]. Further research might practically evaluate the relative impact of female empowerment programs when administered in conjunction with microfinance or asset-based programs, as well as various other structural interventions. This study adds to the limited existing evidence base to support the humanitarian community in meeting the unique needs of adolescent girls and promoting their safety and well-being.

### Funding Sources

This document is an output from a project funded with UK aid from the UK Department for International Development (DFID) for the benefit of developing countries (grant #40080602).

### References

- [1] Jewkes R, Morrell R. Gender and sexuality: Emerging perspectives from the heterosexual epidemic in South Africa and implications for HIV risk and prevention. *J Int AIDS Soc* 2010;13:6.
- [2] Mensch B, Bruce J, Greene M. *The unchartered passage: Girls adolescence in the developing world*. New York, NY: Population Council; 1998.

- [3] Aolain F. Women, vulnerability, and humanitarian emergencies. *Mich J Gen L* 2011;18:1–2.
- [4] Spangaro J, Adogu C, Ranmuthugala G, et al. What evidence exists for initiatives to reduce risk and incidence of sexual violence in armed conflict and other humanitarian crises? A systematic review. *PLoS One* 2013;8:e62600.
- [5] Ellsberg M, Jansen H, Heise L, et al. Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: An observational study. *Lancet* 2008;371:1165.
- [6] Campbell J. Health consequences of intimate partner violence. *Lancet* 2002;359:1331–6.
- [7] World Health Organization. Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO Press; 2013.
- [8] Pinel A, Kemunto Bosire L. Traumatic fistula: The case for reparations. *Forced Migration Rev* 2007;18–20.
- [9] Thomas K. Sexual violence: Weapon of war. *Forced Migration Rev* 2007;15–7.
- [10] Allden K, Murakami M. Trauma and Recovery on War's Border: A Guide for Global Health Workers. Lebanon, New Hampshire: Dartmouth College Press; 2015.
- [11] Plan International. Because I am a girl: The state of the world's girls 2013. In double jeopardy: Adolescent girls and disasters. UK: New Internationalist Publications Ltd; 2013.
- [12] Schlecht J, Rowley E, Babirye J. Early relationships and marriage in conflict and post-conflict settings: Vulnerability of youth in Uganda. *Reprod Health Matters* 2013;21:234–42.
- [13] Hutchinson A, Waterhouse P, March-McDonald J, et al. Understanding early marriage and transactional sex in the context of armed conflict: Protection at a price. *Int Perspect Sex Reprod Health* 2016;42:45–59.
- [14] Inter-Agency Standing Committee (IASC). Guidelines for gender-based violence interventions in humanitarian Settings: Focusing on prevention of and response to sexual violence in emergencies (field test Version). Geneva: Inter-Agency Standing Committee; 2005.
- [15] Martin S. Chapter 10: Refugee women. In: Segal UA, Elliott D, eds. *Refugees Worldwide*. Praeger; 2012. Available at: <https://books.google.com/books?id=Vybo7NN6hWQC>.
- [16] Austin J, Guy S, Lee-Jones L, et al. Reproductive health: A right for refugees and internally displaced persons. *Reprod Health* 2008;16:10–21.
- [17] Krause S, Jones R, Purdin S. Programmatic responses to refugees' reproductive health needs. *Int Fam Plan Perspect* 2000;26:181–95.
- [18] International Center for Research on Women (ICRW). New insights on preventing child marriage: A global analysis of factors and programs. Washington, D.C.: International Center for Research on Women; 2007.
- [19] Stark L, Khudejha A, Yu G, et al. Prevalence and associated risk factors of violence against conflict-affected female adolescents: A multi-country, cross-sectional study. *Journal of Global Health* 2017;7(1):010416.
- [20] Falb K, Tanner S, Ward L, et al. Creating opportunities through mentorship, parental involvement, and safe spaces (COMPASS) program: Multi-country study protocol to protect girls from violence in humanitarian settings. *BMC Public Health* 2016;16:231.
- [21] Falb K, Tanner S, Asghar K, et al. Implementation of Audio-Computer Assisted Self-Interview (ACASI) among adolescent girls in humanitarian settings: feasibility, acceptability, and lessons learned. *Conflict & Health* 2016;10:32.
- [22] Stark, L, Asghar, K., Seff, I., Tesfay, T., Ward, L., Assazene, A., Neiman, A., and Falb, K. Preventing Violence Against Refugee Adolescent Girls: Findings from a Cluster-Randomized Control Trial in Ethiopia (Under review).
- [23] Bronfenbrenner U. *Ecological systems theory*. Jessica Kingsley Publishers; 1992.
- [24] Zetter R, Ruauhel H. Refugees' right to work and access to labor markets – an assessment. Washington D.C.: KNOMAD working paper; 2016.
- [25] UNHCR. Ethiopia. 2016. Available at: <http://reporting.unhcr.org/node/5738>. Accessed December 12, 2016.
- [26] Luke N, Kurz K. Cross-generational and transactional sexual relations in sub-Saharan Africa. Washington, DC: International Center for Research on Women (ICRW); 2002.
- [27] Wamoyi J, Wight D, Plummer M, et al. Transactional sex amongst young People in rural Northern Tanzania: An ethnography of young women's motivations and negotiation. *Reprod Health* 2010;7:2.
- [28] Women's Refugee Commission. Building livelihoods: A field manual for practitioners in humanitarian settings. New York: WRC; 2009.
- [29] Child Protection in Crisis Network. The impacts of economic strengthening programs on children: A review of the evidence. New York, NY: Child Protection in Crisis Network; 2011.
- [30] Erulkar AS, Chong E. Evaluation of a savings and micro-credit program for vulnerable young women in Nairobi. New York, NY: Population Council; 2005.
- [31] Pronyk P, Hargreaves JR, Kim JC, et al. Effect of a structured intervention for the prevalence of intimate-partner violence and HIV in rural South Africa: A cluster randomised trial. *Lancet* 2006;368:1973–83.
- [32] Caton C, Chaffin J, Marsh M, Read-Hamilton S. Empowered and safe: Economic strengthening for girls in emergencies. New York, NY: Child Protection Crisis Network, Women's Refugee Commission, United Nations Children's Fund (UNICEF); 2014.
- [33] Austrian K, Muthengi E. Safe and Smart savings Products for vulnerable adolescent girls in Kenya and Uganda: Evaluation report. Nairobi: Population Council; 2013.
- [34] Schulte J. Tapping the potential of displaced youth: Guidance for nonformal education and livelihoods development policy and practice. New York: Women's Refugee Commission; 2011. Available at: <http://resourcecentre.savethechildren.se/content/library/documents/tapping-potential-displacedyouth-guidance-nonformal-education-and-livelihoods>. Accessed December 12, 2016.
- [35] UNHCR. UNHCR handbook for the protection of women and girls. Geneva: UNHCR; 2008.
- [36] Ellsberg M, Arango DJ, Morton M, et al. Prevention of violence against women and girls: What does the evidence say? *Lancet* 2015;385:1555–66.
- [37] Krause U. Analysis of empowerment of refugee women in camps and settlements. *J Intern Displacement* 2014;4:28–52.
- [38] Falb K, Annan J, Kpebo D, et al. Differential impacts of an intimate partner violence prevention program based on child marriage status in rural Côte d'Ivoire. *J Adolesc Health* 2015;57:553.