

Research Article

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**A COMMUNITY-BASED RISK REDUCTION AND RECOVERY
PROGRAM; A MODEL FOR THE SYRIAN REFUGEE CRISIS**
TOPLUM TEMELLİ RİSK ÖNLEME VE İYİLEŞME PROGRAMI;
SURIYE MÜLTECİ KRİZİNDE BİR MODEL¹Zeynep Simsek**ABSTRACT****CORRESPONDENCE**

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Women and children are the primary risk group in terms of secondary mortality and morbidity caused by wars and conflicts. Turkey has hosted the largest population of Syrians since 2011. In this study, it was carried out the investigation to implement a community based, culturally-sensitive risk reduction and recovery program (RRRP) for Syrian refugees who were living outside of the camps in Turkey. Mixed methodology combining quantitative and qualitative data from 74 health mediators and Women's Refugee Counseling Center records were used for program evaluation. Antenatal and postnatal care, contraceptive demand, breastfeeding, referred cases, and self-efficacy increased significantly, while mental health symptoms decreased following the RRRP intervention ($p < 0.05$). The results of this study indicated that the RRRP was a powerful tool to stimulate hope through the reestablishment of daily routines based on risk reduction, building positive thinking, creating social support, increasing self-efficacy, and decreasing mental health symptoms as a community empowerment program for refugees.

Keywords: refugee, risk reduction, recovery, community empowerment

ÖZET

Savaş ve çatışmaların neden olduğu ikincil ölüm ve hastalıklar açısından kadın ve çocuklar öncelikli risk grubudur. Türkiye 2011 yılından bu yana Suriye'de yaşanan çatışmalar nedeniyle çok büyük nüfusun yaşadığı bir ülkedir. Bu çalışmada kamp dışında yaşayan mülteci nüfusa yönelik topluma dayalı, kültüre duyarlı bir risk azaltma ve iyileşme modeli (RRRP) geliştirilerek etkisi incelenmiştir. Program değerlendirilmesi niceliksel ve niteliksel verinin birlikte kullanıldığı karma metodoloji ile 74 sağlık aracısından elde edilen veri ve Mülteci Kadın Danışma Merkezinin kayıtları kullanılmıştır. Müdahale sonrasında doğum öncesi ve sonrası bakım, aile planlaması malzemesine talep, emzirme, yönlendirilen olgu sayısı, öz yeterlilik anlamlı ölçüde yükselirken, ruh sağlığı belirtileri azalmıştır ($p < 0.05$). Bu çalışma, toplumu güçlendirme programı aracılığıyla, risk faktörlerini kontrol ederek günlük rutin yaşamın yeniden kurulmasının, olumlu düşünceyi, sosyal desteği ve öz yeterliliği yükselterek ve ruhsal semptomları azaltarak umudu arttığını göstermiştir.

Anahtar kelimeler: mülteci, risk azaltma, iyileşme, toplumu güçlendirme

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INTRODUCTION

More than 65 million people are displaced worldwide, and many countries are currently experiencing an unprecedented influx of people from countries whose health care system and quality of healthcare are weakened (Laverack, 2018). Conflict and displacement cause the loss of lives; an increase in physical, mental, and neurological diseases due to the disruption of life-sustaining services, including reproductive health services and an increase in daily social, cultural, and economic stressors in the host country (Jamieson et al., 2000; Bartlett et al., 2002; Murray et al., 2002; de Jong et al., 2003; Carta et al., 2005; Fazel et al., 2005; Jayatissa et al., 2006; ECDC, 2009; Huffman, 2009; Lindert et al., 2009; Benson et al., 2013; Aptekman et al., 2014; Masterson et al., 2014; Benage et al., 2015; Strong et al., 2015; Yentür et al., 2016; Simsek et al., 2018). Empirical findings and theoretical models have outlined the specific risk factors and pathogenic processes, including predisplacement, during transit, resettlement, and living in the host country leading to post traumatic stress disorder (PTSD) (Oi et al., 2016). Studies of post traumatic growth and recovery have shown that the emergence of new opportunities, deeper relationships, and greater compassion for others, reordered priorities of life, and deepening on spirituality, are very important for recovery (Calhoun, Tedeschi, 2006). Therefore, in order to ensure recovery in community traumas, the focus should be on studies of family-community empowerment, rather than pathology focused studies (Rutter, 1999; Walsh, 2007; Ventevogel et al., 2015).

More than 8 years of conflict in Syria (since 2011) has resulted in an unprecedented level of population displacement, the majority of whom have crossed the border into Turkey due to its open door policy and border width (UNHCR, 2014). Turkey now has a Syrian population of over 3.5 million, with the majority living in southeastern Anatolia and metropolitan cities (Republic of Turkey Ministry of Interior Directorate, 2018). It is important to prevent new traumatic experiences after migration, detect symptoms, and ensure recovery by controlling the risk factors in refugee groups. Empirical findings and theoretical models have outlined specific risk factors related to reproductive health issues, communicable diseases, and mental health problems. Poor health outcomes are more prevalent in women because of the early age marriages, consanguineous marriages, complications during pregnancy and birth, unintended pregnancies, not breastfeeding, lack of social support, gender inequalities, intimate partner violence, dysfunctional coping mechanisms, anemia, and cutaneous leishmaniasis; all of which constitute major risk factors for well-being (McGinn, 2000; Gagnon et al., 2002; Yanik et al., 2004; Simsek et al., 2008; Olf et al., 2010; Bittles, 2013; Dodgson et al., 2014; Maghsoudlou et al., 2015; Robertson et al., 2016; Castello et al., 2016; Dikmen et al., 2017; Okech et al., 2018; du Toit et al., 2018; Maguire et al., 2018). Informing the risk groups alone is often not enough to change their behavior, since the above mentioned risk factors are mainly related to social and cultural environment.

Therefore, as a response to refugee crisis, was developed by the author supported by United Nations Population Fund (UNFPA) Turkey Representative, a population-based culturally sensitive program in order to increase hope by reducing risk factors and spreading protective factors considering the neurobiological and psycho-social dimensions, and increasing accessibility and acceptability of primary healthcare services for refugee health in 2014. This article describes a systematic approach for recovery after displacement by promoting the overall health of the refugees with a risk reduction program.

METHODS

Magnitude of the problem

The province of Sanliurfa, in southeastern Turkey, shares a 223-km-long border with Syria, and had a refugee population of approximately 1 million people in 2013. The cross-sectional study of female Syrian refugees aged 15–49 years, who were

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living outside of the camps, revealed the magnitude of the problem. The main findings included: a) the majority of women were illiterate, b) early age marriages and number of desired children increased after the war, c) about one in 4 women did not receive pre/post natal care, d) the unmet need of the contraception method was 37.8%, e) micronutrient deficiencies were about 50%, f) the majority of women reported at least 2 mental health symptoms significantly associated with the lack of social support, language barrier, and B12 deficiency, and g) a lack of reproductive and mental health knowledge and little control over their health. The majority of these findings were related to cultural values and beliefs, most of which required behavior changes, and insufficient access to primary health services. Offering primary health care services is urgently needed, including reproductive health services integrated with mental health services through health promotion strategies outside of the camps (Simsek et al., 2018).

Program Design

We designed an operational study to control the risk factors and ensure recovery, which was called the "Syrian Refugee Risk Reduction and Recovery Program in Şanlıurfa, Turkey" for refugees living outside the camps in collaboration with a Turkish Representative of the United Nation Population Fund (UNFPA). The Ethics Committee of Harran University approved the design of this study. This model included: 1) a need-assessment survey to define the magnitude of the problem, 2) Turkish language courses and material development, 3) the Refugee Women's Counseling Center connected to the Medical Faculty, and 4) training of health mediators for case identification, disseminating health knowledge, behavior change, social support, and increasing the acceptability and accessibility of primary health care services based on reproductive and mental health services.

Language courses and material development

In the need-assessment survey, one of the important predictors related to mental health was the language barrier; hence, a decision was made to open Turkish language courses for female Syrian refugees on the Harran University campus.

A healthy living guide, including pathways to a healthy life based on a cross-sectional survey was prepared and printed in Turkish and Arabic for the language courses. In addition, illustrated guides were prepared related to 'psychological trauma, breastfeeding, birth intervals, adolescent health, breast and cervical cancer, and family communication. All of the materials were developed in close collaboration with the refugees to assess their needs, and provided information that was culturally specific and had respect for their values and beliefs.

Women's Refugee Counseling Center

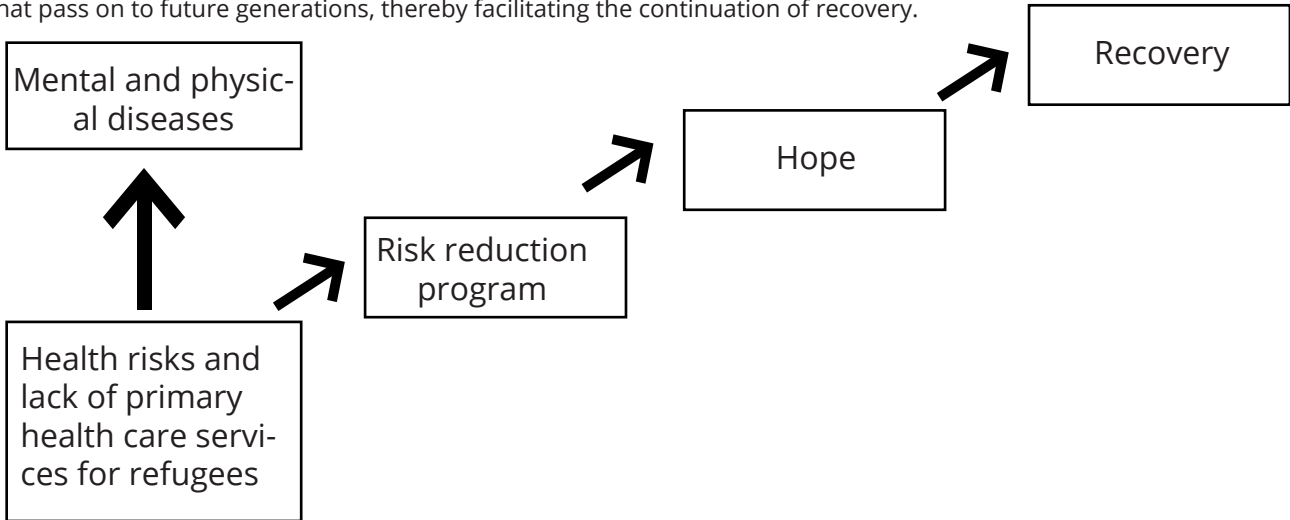
In order to make the reproductive and mental healthcare facilities more accessible and acceptable for refugees, the Public Health Department, in collaboration with the Gynecology Department, designed a unit called the 'Women's Refugee Health Counseling Center' which provided antenatal and postnatal care, nutritional supplements, contraceptives, and psychological support. The center included a health team (doctor, Syrian midwife, social worker, and translator) connected to the University Hospital. The model was designed to be compatible with the existing primary health care system in Turkey. After service delivery had been standardized, this center was connected to the Şanlıurfa Public Health Department as a Refugee Center and used for Safe Places for Women and Girls by UNFPA.

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Training of Health Mediators

Community-based interventions are vital due to the following factors: development of behavior in a cultural environment, lack of knowledge of the services, the language barrier, and some taboos related to reproductive and mental health. The health mediator program was the most important stage of this intervention, aiming to serve vulnerable women groups, changing negative behaviors by disseminating health knowledge into refugee groups, helping to establish social support mechanisms, and increasing the accessibility and acceptability of reproductive and mental health services. Health mediators aimed to make refugees acquire healthy behaviors by assuming the role of early adopters of these behaviors. Due to the fact that peer influences are especially important when addressing behavior changes. This risk reduction program aimed to stimulate hope by the reestablishing the routines of life, building positive thinking, creating social support groups by sharing health knowledge and resources, and increasing internal control and self-efficacy.

The logical framework of the training program is given in Figure 1. Risks were chosen among the factors that affect women's health and were directly related to well-being. All of the materials and the training program were prepared according to these criteria. The indicated risk factors cause new traumas, while deepening the existing ones, and prohibiting recovery. Hope provides necessary energy for rebuilding one's life and renewing attachments; moreover, it helps to create positive feelings that pass on to future generations, thereby facilitating the continuation of recovery.



Graphic 1: Logical framework of the RRRP

Each of the following topics have been prepared based on the health behavior theories (health belief model, theory of planned behavior, social norm theory, and diffusion of innovation theory) in order to gain knowledge, improve skills, change behavior, motivation, and all of them were created to provide culturally sensitive, cognitive and emotional stimulations (Glanz et al. 2002). After training each day, health mediators were given homework relating to the adjustment of what they have learned into a culturally appropriate context. The development of each health mediator was observed by the trainers by asking them to demonstrate their homework using the role playing technique.

The content of the 60-h training program focused on neural-biological and psychosocial factors for well-being:

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- The relationship between human behavior and disease/premature death (3 h)
- Role of health mediators and methods of persuading healthy behavior (4 h)
- Being a parent (focused on the adolescent period, and early age marriage) (3 h)
- Hereditary diseases, premarital, and prepregnancy health check-ups (4 h)
- Maternity and intrauterine development (focused on prenatal care) (3 h)
- Postnatal care and breastfeeding (5 h)
- Child care aged 0–3 years (4 h)
- Planned parenting and contraceptive methods (4 h)
- Psychological first aid and mental health promotion, including stress management, relaxation techniques, positive thinking practices and developing culturally-appropriate social support mechanisms, and psycho-education of posttraumatic stress disorder (16 h)
- Control of endemic diseases including malaria, cutaneous leishmaniasis, and common infectious diseases (4 h)
- Control of sexually transmitted diseases (3 h)

In order to eliminate the taboos for reproductive health and mental health, field-experienced trainers were chosen among both genders from Medical Faculty and Health Sciences Faculty. Since religious statements about reproductive health were frequently expressed, an academician from the Faculty of Theology worked as a trainer for religious explanations.

Among the female refugees who attended the Turkish courses, 74 health mediators were selected and accepted to participate in the study voluntarily, and who have no health problem for field work. They were paid for their traveling, telephone expenses, and an additional 5 TL for every home visit.

The field work plans of each health mediator were prepared and given supervision once a week by the supervisors. In the field work, priority was given to women who lived alone, were pregnant or had given birth, had many children, were at high risk in terms of exposure to physical and sexual violence and early marriage, had experienced the loss of a family member, were sick and could not access health services, lived in close proximity, and whose social support mechanism was weakened.

Supervisors were advised that their role was to identify the health and social care needs of the women, to ensure awareness of health promotion information, and provide social support, while the limitations of their roles were emphasized. In the supervision meetings, the importance of fact-based, clear, and consistent information provision, empathetical reactions, deciding and managing based on cooperation, and aggregating little accomplishments were emphasized.

Data Collection

The effect of this program was assessed using the mixed methodology combining quantitative and qualitative data. In the quantitative evaluation, a 40-item questionnaire was used, mostly including reproductive health knowledge, behaviors, and infectious disease primary prevention methods, and Arabic versions of the GHQ-12 and generalized self-efficacy scale (GSES). These measures were applied before the training took place, and also 1 and 3 months after the training. To increase our understanding of the nature and extent of the health mediators' activities, we interviewed them in the supervision sessions related to their field studies for a qualitative evaluation, and applied an assessment form at the end of the 8-month program. This form included the effects of the program on their life and the degree of the behavior change (ranging from 0 to 100; the higher the score, the easier the behavior change).

Moreover, follow up forms were developed, including language course applications, Women's Refugee Counseling Center's studies (pregnancy follow-up cards, aged 15–49 monitoring form), and health mediator field studies.

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In qualitative evaluation, all health mediator were asked to write a page of what happened in their lives and their environment, what they felt based on the program. Thematic analysis of the texts written by health mediators was made.

MEASURES

Mental Health Symptoms

The Arabic version of the general health questionnaire 12 (GHQ/12) was used for screening the mental symptoms of the health mediators. The GHQ-12 consists of 12 items, each assessing the severity of a particular mental problem over the past 2 weeks using a 4-point Likert-type scale (range 0–3), which is a valid and reliable psychiatric screening instrument (sensitivity = 0.83 and specificity = 0.80) (el-Rufaie and Daradkeh, 1996).

Self-efficacy

The General Self Efficacy Scale (GSES) is a measure of people's beliefs about their capacity to cope with life's demands. The GSES comprises 10 items rated on a scale of 1 (not at all true) to 4 (exactly true). Sample items include: "I can manage to solve difficult problems if I try hard enough" and "If I am in trouble, I can usually think of a solution". Thus the higher the score, the greater the individual's generalized sense of self-efficacy. The Arabic GSES is a reliable and valid tool for measuring general self-efficacy among women (Crandal et al., 2016).

RESULTS

The mean age of the 74 health mediators was 27.2 ± 11.1 years; 78.6% were married, and the median number of years of education was 12.1 ± 6.1 .

At the end of the training program, all of the health mediators reported that they were very happy due to the fact that they could help families, other refugees, and also themselves. Furthermore, 87.3% had learned and practiced new subjects they did not know, and 77.3% stated that they started to give importance to their health and started to implement what they had learned in order to avoid several diseases and their self-confidence had increased. Moreover, 77% reported that they started to solve the problems they experienced as Syrian women. As shown in Table 1, the mean of the correct answers increased by 12.6, 32.8, and 39 points, respectively ($P < 0.05$). While the mean GSES score increased, the GHQ-12 score decreased significantly ($P < 0.05$). Of the health mediators, 7 migrated to other provinces, so they had to leave the study.

Table 1: GHQ-12 and GSES Scores

	Pre-training n=74 Mean \pm Sd	Post training n=71 Mean \pm SD	(1 month 3rd of field month) study n=67 Mean \pm SD
40 item - knowledge and behavior questionnaire (correct answer)	12.6 \pm 5.7	32.8 \pm 4.8	38.8 \pm 2.3
GSES	18.9 \pm 8.7	26.3 \pm 6.9	34.9 \pm 2.9v
GHQ-12	27.4 \pm 9.1	18.5 \pm 4.8	6.7 \pm 1.1

In Table 2, the number of people who were accessed by health mediators according to the subjects obtained from the field study follow-up cards over 10 months is presented. Moreover, the degree of difficulty of changing the behavior of each subject was given. The health mediators reached 9178 families. About 1 out of 3 health mediators stated that creating

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behavior change was hardest for the following risk factors: early age marriage, consanguineous marriage, gender equality, and persuading women exposed to violence to stand up for their rights. They also reported that other behaviors aside from the abovementioned factors were much easier to change (71.4%–99.4%).

Table 2. Field Studies Reported by the Health Mediators (June 2015–March 2016)

Interventions	No. of accessed people	Degree of convenience of behavior change
No. of women referred to the center for ante-natal care		97.7
No. of women referred to the hospital for delivery	1130	89.8
No. of women referred to the center post-natal care	765	91.7
No. of women persuaded to have birth interval	714	71.4
No. of women persuaded into planned parenthood and contraceptive methods	103	95.5
No. of women who started to breastfeeding	2569	99.4
No. of girls under 18 years prevented from marriage	1250	57.8
No. of people convinced to not marry relatives	1413	37.2
No. of women referred for tetanos vaccination	1342	79.5
No. of people educated for infectious diseases prevention and early diagnosis based on cutaneous leishmaniasis, tuberculosis, and diarrhea)	876	98.6
No. of women referred to the center for STDs	7064	
No. of women referred to the center for violence		
No. of women informed of psychoeducation on traumatic stress and coping mechanism	923	71.9
No. of women referred for breast and cervical cancer screening	95	58.1
Gender inequality prevention	4128	88.7
	1245	88.9
	2453	52.5
No. of home visits	9178	

Thematic analysis exemplify to what extend the risk prevention model changed their priorities and established their life routines, and built hope once again with the feelings arising from helping others;

1. "I changed": I learned to prevent diseases, applied them to my life and became less sick. My whole life changed. My psychology improved. A new era began in my life.'

2. "My awareness has increased": my awareness of the risks of child marriages has increased.

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3. 'My self-confidence has increased': I felt worthless in Syria. Now my life has changed, as if I were reborn, I feel comfortable talking to people now.
4. "I got stronger": my perspective on life has changed, I have become more hopeful.
5. "I changed others": I changed others' perspectives on infectious diseases, reproductive health issues, trauma and recovery. We talked about war before, now we're talking about being healthy.

As shown in Table 3, the reproductive and mental health services was accessed by 7520 women. The following excerpt illustrates this situation.

These issues need to be discussed with a trusted person. When I say that the midwife and the psychologist in the center are from Syria, they are more convinced, more courageous. It was very good to have one of us there.' (Syrian health mediator, age 33)

'However, we know what we have experienced. The Syrian midwife is easy to understand. We trust her even more when we see her (Syrian health mediator, age 42).

Table 3. Services of the Women's Refugee Counseling Center (June 2014-March 2015)

Services	N of women
Reproductive health consultation from another unit of the hospital	2073
Pre/post natal care including, micronutrient supply	2337
Contraceptive method applications	2789
Psychosocial consultation	321
Total	7520

DISCUSSION

Operational research based on community empowerment requires knowledge of society's sociodemographic and cultural features and needs, development of evidence-based intervention programs, and the integration of proven methods into the system after the assessment of the effectiveness of the program. This article presents the RRRP for Syrian refugees, especially focused on women's health, using operational research in Sanliurfa, the province with the highest rate of Syrian refugees in Turkey. Until this study, there was no comprehensive attempt to ensure a population-based and culturally-sensitive risk reduction approach for recovery. After definition of the problem, we designed and implemented this model, and shared the results with the Ministry of Health, UNFPA, and all of the stakeholders; and this model was implemented across Turkey. Several conclusions can be drawn from this operational research.

First, this model started with cross-sectional study, and all stages of the program were developed evidence-based approach. All protective and risk factors that provide recovery are included in the program. In the need-assessment survey, the prevalence of consanguineous marriage, early age marriage, giving birth before the age of 18, pregnancy loss, unmet need for contraception, unplanned parenthood, unmet need of antenatal and postnatal care, and mental health symptoms were very high (Simsek et al., 2018). Therefore, the content of the training materials created healthy behaviors associated with the main risk factors that Syrian women and their families face throughout their lives in Turkey. Since the magnitude of the risk has been identified by the research, the process of making people realize the importance of the problem, which is the first stage of behavioral change, became easier.

Second, taking a responsibility for controlling the risk factors, which are disrupting the well-being, has led to healing, as it has increased the self-esteem and the sense of control of the health mediators. Additionally, it enhanced hope for

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Third, this program has been very effective for the acceptability and accessibility of reproductive health, mental health, and social services. The health mediators developed trust-based relations in their neighborhoods, thereby acting as a social support mechanism. They indicated the women and families who are under risk and provided services that fulfilled the basic needs of these women and their families. The importance of social support after the traumatic incidents was presented in the literature (Walsh, 2007; Sierau et al., 2018; Posselt et al., 2018). They reached approximately 10,000 families over the 10 months. Difficulties in accessing healthcare services have long been more common among refugee groups depending on the language barriers, living in remote areas, especially out of the camps, low public health literacy, poor education, and negative cultural values creating taboos (Samari, 2017; Al-Rousan et al., 2018; Oda et al., 2018; Torun et al., 2018; Simsek et al., 2018). In the literature, health mediators are also called lay health workers or community health workers performing diverse functions related to healthcare delivery; whose attendance is to study commonly results in increasing access to preventive services by a particular community (Lewin et al., 2010; Patel et al., 2010). On the other hand, the health mediators helped to identify and direct tuberculosis, sexually transmitted disease, and cutaneous leishmaniasis patients to the appropriate centers. The effectiveness of health mediator programs have been questioned in scale-up in terms of their lack of consistent supervision, weak linkages to existing health systems, and no sustained community financing (Walt et al., 1989; Glenton et al., 2011; de Vries and Pool, 2017). In this study, effective supervision was ensured through systematic observations by the trainers. Furthermore, the health mediators were integrated into the refugee healthcare system in Turkey, while ensuring their material wellbeing by providing them with monthly minimum wages funded by UNFPA (Simsek et al., 2017).

Fourth, mental health symptoms were correlated with the language barrier, and for this reason, language courses were opened for women and girls. All course materials were prepared to educate them in mental and reproductive health while learning Turkish. Learning about prevention of diseases and early death cases while learning Turkish, has increased the interest to the course and the motivation to its completion. The usage of these documents by the health mediators while working in the community has also played an important role in the increasing of trust.

Fifth, while healthy behaviors were being taught through home / community visits within the community, the opening of the 'Women's Health Counseling Center', where Syrian midwives worked, have provided the access to the service. The inclusion of service providers from the same culture has increased the acceptance of life-saving services within the community such as family planning. In this study, a Syrian midwife, a social worker, and a translator served in the center and about 7000 refugee women were given access to reproductive and mental health services.

After the effectiveness of this model was observed, the Devteşti and Yenice Migrant Health Centers were opened by the Sanliurfa Public Health Directorate on March 1, 2015. This model has been launched across the country by UNFPA as the best practice model.

Finally, community-based interventions help not only the high-risk population but also the affected general population to recover. It provides to regain lost control and sense of trust. Participation in the processes of meeting basic needs is a process that increases the resilience of the society. Thus, daily routine is regained, social support networks are formed, participation in decisions / services improves control and trust feelings. Further research should be focused on the question of whether any behavior change of the community, and the recovery was observed over the long term.



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REFERENCES

- Al-Rousan, T., Schwabkey, Z., Jirmanus, L., Nelson, B. D. 2018. Health needs and priorities of Syrian refugees in camps and urban settings in Jordan: perspectives of refugees and health care providers. *East Mediterr Health J*, 24(3), 243–253. doi: 10.26719/2018.24.3.243.
- Aptekman, M., Rashid, M., Wright, V., & Dunn, S. (2014). Unmet contraceptive needs among refugees. *Can Fam Physician*, 60(12), 613–619.
- Bartlett, L. A., Jamieson, D. J., Kahn, T., Sultana, M., Wilson, H. G., & Duerr, A. (2002). Maternal mortality among Afghan Refugees in Pakistan, 1999–2000. *Lancet*, 359, 643–649.
- Benage, M., Greenough, P. G., Vinck, P., Omeira, N., & Pham, P. (2015). An assessment of antenatal care among Syrian refugees in Lebanon. *Confl Health*, 9(9), 8. doi: 10.1186/s13031-015-0035-8
- Benson, J., Phillips, C., Kay, M., Webber, M. T., Ratcliff, A. J., Correa-Velez, I., & Lorimer, M. F. (2013). Low vitamin B12 levels among newly-arrived refugees from Bhutan, Iran and Afghanistan: a multicentre Australian study. *PLoS ONE*, 8(2), e57998.
- Bittles, A. H. (2013). Consanguineous marriages and congenital anomalies. *The Lancet*, 382(9901), 1316–1317. doi: 10.1016/S0140-6736(13)61503-2
- Calhoun, L. G., Tedeschi, R. G. (Eds.). (2006). *Handbook of Posttraumatic Growth: Research and Practice*. Mahwah, NJ: Erlbaum.
- Carta, M. G., Bernal, M., Hardoy, M. C., & Haro-Abad, J. M. (2005). Migration and mental health in Europe (the state of the mental health in Europe working group: appendix 1). *Clin Pract Epidemiol Ment Health*, 1, 13.
- Crandall, A., Rahim, H. F., & Yount, K. M. (2016). Validation of the general self-efficacy scale among Qatari young women. *East Mediterr Health J*, 21(12), 891–6.
- de Jong, J. T., Komproe, I. H., & Van Ommeren, M. (2003). Common mental disorders in postconflict settings. *Lancet*, 361(9375), 2128–2130.
- de Vries, D. H., Pool, R. (2017). The influence of community health resources on effectiveness and sustainability of community and lay health worker programs in lower-income countries: A systematic review. *PLoS ONE*, 12(1), e0170217.
- du Toit, E., Jordaan, E., Niehaus, D., Koen, L., & Leppanen, J. (2018). Risk factors for unplanned pregnancy in women with mental illness living in a developing country. *Arch Womens Ment Health*, 21(3), 323–331.
- Dikmen, Yildiz, P., Ayers, S., Phillips, L. (2017). Factors associated with post-traumatic stress symptoms (PTSS) 4-6 weeks and 6 months after birth: A longitudinal population-based study. *J Affect Disord*. 15(221), 238–245.
- Dodgson, J. E., Oneha, M. F., & Choi, M. A. (2014). Socioecological predication model of posttraumatic stress disorder in low-income, high-risk prenatal native Hawaiian/Pacific Islander women. *J Midwifery Womens Health*, 59(5), 494–502.
- ECDC. (2009). *Migrant health: background note to the ECDC report on migration and infectious diseases in the EU*. Stockholm, European Centre for Disease Prevention and Control.
- el-Rufaie, O. F., & Daradkeh, T. K. (1996). Validation of the Arabic versions of the thirty- and twelve-item general health questionnaires in primary care patients. *Br J Psychiatry*, 169(5), 662–664.
- Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *Lancet*, 365(9467), 1309–1314. doi:10.1016/S0140-6736(05)61027-6
- Gagnon, A. J., Merry, L., & Robinson, C. (2002). A systematic review of refugee women's reproductive health. *Refugee*, 21(1), 6–17.
- Glanz, K., Rimer, B.K. & Lewis, F.M. (2002). *Health Behavior and Health Education. Theory, Research and Practice*. San Francisco: Wiley & Sons.

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REFERENCES

- Glenton, C., Lewin, S., & Scheel, I. B. (2011). Still too little qualitative research to shed light on results from reviews of effectiveness trials: A case study of a Cochrane review on the use of lay health workers. *Implement Sci*, 6, 53.
- Huffman, S. (2009). Awareness of tuberculosis and access to health services and tuberculosis treatment among Uzbek labor migrants in Kazakhstan. Final report for Project HOPE. Millwood.
- Jamieson, D. J., Meikle, S. F., Hillis, S. D., Mtsuko, D., Mawji, S., & Duerr, A. (2000). An evaluation of poor pregnancy outcomes among Burundian refugees in Tanzania. *JAMA*, 283, 397-402.
- Jayatissa, R., Bekele, A., Piyasena, C. L., & Mahamithawa, S. (2006). Assessment of nutritional status of children under five years of age, pregnant women, and lactating women living in relief camps after the tsunami in Sri Lanka. *Food Nutr Bull*, 27(2), 144-152.
- Kastello, J. C., Jacobsen, K. H., Gaffney, K. F., Kodadek, M. P., Bullock, L. C., & Sharps, P. W. (2016). Posttraumatic stress disorder among low-income women exposed to perinatal intimate partner violence: Posttraumatic stress disorder among women exposed to partner violence. *Arch Womens Ment Health*, 19(3), 521-8.
- Laverack, G. (2018). Is health promotion culturally competent to work with migrants? *Global Health Promotion*, 25(2), 3-5.
- Lewin, S., Munabi-Babigumira, S., Glenton, C., Daniels, K., Bosch-Capblanch, X., VanWyk, B.E, et al. (2010). Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database Syst Rev*, 20051-108.
- Lindert, J., Ehrenstein, O. S., Priebe, S., Mielck, A., & Brahler, E. (2009). Depression and anxiety in labor migrants and refugees--a systematic review and meta-analysis. *Soc Sci Med*, 69(2), 246-257. doi:10.1016/j.socscimed.2009.04.032
- Maghsoudlou, S., Cnattingius, S., Aarabi, M., Montgomery, S. M., Semnani, S., Stephansson, O., & Bahmanyar, S. (2015). Consanguineous marriage, prepregnancy maternal characteristics and stillbirth risk: a population-based case-control study. *Acta Obstet Gynecol Scand*, 94(10), 1095-1101.
- Maguire, A., Tseliou, F., O'Reilly, D. (2018). Consanguineous marriage and the psychopathology of progeny: A population-wide data linkage study. *JAMA Psychiatry*, 75(5), 438-446.
- McGinn, T. (2000). Reproductive health of war-affected populations: What do we know? *International Family Planning Perspectives*, 26(4), 174-180.
- Murray, C., King, G., Lopez, A., Tomijima, N., Krug, E. (2002). Armed conflict as a public health problem. *BMJ*, 324, 346-349.
- Oda, A., Hynie, M., Tuck A, Agic B, Roche B, McKenzie, K. (2018). Differences in self-reported health and unmet health needs between government assisted and privately sponsored Syrian refugees: A cross-sectional survey. *J Immigr Minor Health*. doi: 10.1007/s10903-018-0780-z.
- Okech, D., Hansen, N, Howard, W., Anarfi, J. K., & Burns, A. C. (2018). Social support, dysfunctional coping, and community reintegration as predictors of PTSD among human trafficking survivors. *Behav Med*, 44(3), 209-218.
- Oi, W., Gevonden, M., & Shalev, A. (2016). Prevention of post-traumatic stress disorders after trauma: current evidence and future directions. *Current Psychiatry Reports*, 18(2), 20. doi: 10.1007/s11920-015-0655-0. Review.
- Olf, M., Langeland, W., Witteveen, A., & Denys, D. (2010). A psychobiological rationale for oxytocin in the treatment of post-traumatic stress disorder. *CNS Spectrom*, 15(8), 522-530.

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REFERENCES

- Patel, V., Weiss, H. A., Chowdhary, N., Naik, S., Pednekar, S., Chatterjee, S., et al. (2010). Effectiveness of an intervention led by lay health counsellors for depressive and anxiety disorders in primary care in Goa, India (MANAS): a cluster randomised controlled trial. *Lancet*, 376(9758), 2086–95.
- Posselt, M., Eaton, H., Ferguson, M., Keegan, D., Procter, N. (2018). Enablers of psychological well-being for refugees and asylum seekers living in transitional countries: A systematic review. *Health Soc Care Community*, doi: 10.1111/hsc.12680.
- Masterson, A., Usta, J., Gupta, J., & Ettinger, A. S. (2014). Assessment of reproductive health and violence against women among displaced Syrians in Lebanon. *BMC Womens Health*, 14(1), 25. doi: 10.1186/1472-6874-14-25
- Robertson, C. L., Savik, K., Mathiason-Moore, M., Mohamed, A., & Hoffman, S. (2016). Modeling psychological functioning in refugees. *J Am Psychiatr Nurses Assoc*. 22(3), 225–32.
- Rutter, M. (1999). Resilience concept concepts and findings: implications for family therapy. *J Family Ther*, 21, 119–144.
- Samari, G. (2017). Syrian refugee women's health in Lebanon, Turkey, and Jordan and recommendations for improved practice. *World Med Health Policy*, 9(2), 255–274. doi: 10.1002/wmh3.231.
- Torun, P., Mücaz, Karaaslan, M., Sandıklı, B., Acar, C., Shurtleff, E., Dhrolia, S., Herek, B. (2018). Health and health care access for Syrian refugees living in İstanbul. *Int J Public Health*, 63(5), 601–608. doi: 10.1007/s00038-018-1096-4.
- Strong, J., Varady, C., Chahda, N., Doocy, S., & Burnham, G. (2015). Health status and health needs of older refugees from Syria in Lebanon. *Confl Health*, 2015, 9–12.
- Sierau, S., Schneider, E., Nesterko, Y., Glaesmer, H. (2018). Alone, but protected? Effects of social support on mental health of unaccompanied refugee minors. *Eur Child Adolesc Psychiatry*, doi: 10.1007/s00787-018-1246-5.
- Simsek, Z., Kayi, I., Yildirimkaya, G. (2017). Lay health worker training program for Syrian refugees in Turkey. *Eur J Pub Health*, 27(3), cxx187.256.
- Simsek, Z., Yentur, Doni, N., Hilali, Gül, N., & Yildirimkaya, G. (2018). A community-based survey on Syrian refugee women's health and its predictors in Şanlıurfa, Turkey. *Women Health*, 58(6), 617–631.
- Simsek, Z., Ak, D., Altindag, A. & Günes, M. (2008). Prevalence and predictors of mental disorders among women in Sanliurfa, southeastern Turkey. *J Public Health (Oxf)* 30(4), 487–93.
- UNHCR. (2014). Syrian Regional Refugee Response: Inter-agency Information Sharing Portal. In UNHCR (Ed.), *Syria Regional Response Plan Strategic Overview: Mid-Year Update*. Geneva: UNHCR.
- Walt, G., Perera, M., Heggenhougen, K. (1989). Are large-scale volunteer community health worker programmes feasible? The case of Sri Lanka. *Soc Sci Med*, 29: 599–608.
- Walsh, F. (2007). Traumatic loss and major disasters. Strengthening family and community resilience. *Family Process*, 46(2), 207–227.
- Ventevogel, P., van Ommeren, M., Schilperoord, M., & Saxena, S. (2015). Improving mental health care in humanitarian emergencies. *Bull World Health Organ*, 93(10), 666–666A. doi:10.2471/BLT.15.156919
- Republic of Turkey Ministry of Interior Directorate General of Migration Management. Migration Data. (Accessed 17 November 2018). http://www.goc.gov.tr/icerik3/gecici-koruma_363_378_4713.
- Yanik, M., Gurel, M.S., Simsek, Z., & Kati, M. (2004). The psychological impact of cutaneous leishmaniasis. *Clin Exp Dermatol*, 29(5), 464–7.