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Telepsychiatry And Mental Health Care For Syrian Refugees In Turkey

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Abstract

The Syrian conflict is now in its fourth year and has produced one of the largest humanitarian disasters since the Cold War. Violent fighting and aerial bombings in many of the country's major cities have resulted in massive numbers of internally and externally displaced Syrians, many psychologically traumatized and in need of expert mental health attention. The influx of refugees into Syria's neighboring countries of Lebanon, Jordan and Turkey has stressed already strained health systems. The ability to deliver mental health care is inextricably linked to the existing health care infrastructure—a dynamic and often unstable institution as refugees migrate from one region to another and as local government and social factors influence refugees' access to services. This thesis attempts to provide a framework for understanding the challenges to providing mental health care for Syrian refugees. Telepsychiatry is proposed as a potential modality to help bridge the mental health needs gap. Emphasis will be placed on the southern Turkish province of Kilis, were we carried out a pilot telepsychiatry assessment (PASSPORT study) discussed later in the thesis.

Acknowledgements

My decision to travel to the Turkish-Syrian border was not an easy one, but I felt compelled to learn as much as I can from one of the most serious humanitarian issues facing our generation, especially given my familiarity with the culture and language. I am grateful for Suzanne Barakat who at the time was a medical student at the University of North Carolina and paved the way for students to volunteer at the Kilis Polyclinic in Turkey. I am grateful to Yale School of Medicine and the Office of Student Research for the time and the support of my travel to the border. I am indebted to Professors Andre Barkil-Oteo and Hussam Jeffee-Bahloul for their mentorship and guidance throughout every phase of my research. My experience was enhanced beyond a pure volunteer mission and I learned many things that I hope will one day allow me to give more to science and the people and patients who we are meant to serve. I am grateful to the Syrian American Medical Society (SAMS) for their acceptance of my request to volunteer and research at the Kilis Polyclinic for Syrian refugees. Most of all, I am indebted and grateful to the hundreds of Syrians, refugees, doctors, professors, drivers, homemakers, artisans, people, who in the face of indescribable adversity welcomed me, hosted me and taught me more than anything I gave in return.

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1. Syria and the Arab Spring

If a people one day wills to live, fate [God] must answer its
Call and the night must fade, and the chain must break.
-Tunisian poet Abou el-Kacem al-Chebbi, 1909-1934

On December 18, 2010 in the Tunisian city of Sidi Bouzid, Mohamed Bouazizi, unable to find work and selling fruit at a street stand, set himself on fire in protest of work conditions and police corruption. His self-immolation became the catalyst for escalating protests that, by January 14, 2011, led to the fleeing of Tunisian President Zine El Abidene Ben Ali to Saudi Arabia. The success of the Tunisian protests in deposing their president, widely held to be a dictator overseeing a government fueled by corruption, inspired protests across the Arab world. In mid-March, residents of the small Syrian city of Dara'a took to the streets to protest the torture of students who had put up anti-government graffiti.[1] The unrest spread to other parts of the country but was initially kept from devolving into conflict by a rapid and strong-arm response by the government.

2. Violence, Political Intimidation and Psychological Stress in Syria

Some understanding of the history of violence and political dissent in Syria is essential to understanding the backdrop of the current refugee crisis. Prior to leaving Syria, many refugees suffered from long-standing stress caused by secret police communications, kidnappings of family members, and an overall political intimidation that permeated many aspects of daily life. One physician noted, for example, how he would receive

daily threats in the forms of text messages detailing the whereabouts of his family members and how they would be dealt with for being sympathetic to the resistance.

The Syrian government has a long history of aggressive response to political dissent and protest. In 1982, Hafez Al-Assad, father of current Syrian president Bashar Al-Assad, ordered the quelling of an armed uprising by members of the Muslim Brotherhood in the city of Hama.[5] The city was besieged for three weeks before a raid by air and land saw every dissident killed. Troops were sent in to comb through the rubble and quell any remaining opposition. Initial diplomatic reports from Western countries placed the fatalities around 1,000. Subsequent estimates reported between 10,000 to 40,000 civilians killed. The Hama Massacre is widely regarded as one of the bloodiest attacks by a government on its own people in the Arab world and is a defining memory for many Syrians. The atrocities committed in the current conflict sadly come as little surprise for a population sensitized by Hama and aware of the price of political dissent. The Free Syrian Army (FSA; the main opposition formed by a conglomerate of fighting organizations) is also accused of committing several atrocities.[3,4,43] By all international measures, however, the government-sponsored Syrian army has committed the overwhelming majority of war crimes.[2,4]

Responsibility has become increasingly unclear as the FSA has become fragmented and infiltrated by several foreign organizations, including the Islamic State of Iraq and Syria (ISIS). In September 2013 there was an altercation just across the border in Kilis between ISIS and the FSA over a kidnapped German physician.[45] ISIS attempted to

kidnap the physician who was under the formal protection of the FSA. Fighting erupted and the border crossing was bombed, resulting in its closing by Turkey for over three weeks.[45]

In addition to political intimidation and threats of kidnappings, many Syrians suffer from trauma caused by the widespread utilization of barrel bombs. Barrel bombs are essentially 55-gallon drums half-filled with explosives and half-filled with shrapnel—nails, broken glass, even junk auto parts. They are dropped from helicopters and cause widespread mutilation. Fear of airstrikes was generally a major underlying source of distress amongst many refugees. This interview with Abu Fadel, a 29-year-old driver from Azaz, a small city between Aleppo and Kilis, highlights this fact:

> "I stayed in my village outside of Aleppo as long as I can. Every day we would hear a blast. Some times it was far away, sometimes it would strike a building very close to the one we lived in. My children reached a point where if they would hear an airplane flying overhead, they would fall to the ground and start crying and start shaking. We would stay in a constant state of *wudu* [the Islamic ritualistic ablution] and prepare to die every time we heard a plane fly overhead. One day, a strike leveled an apartment building across from ours. I went to help out with the destruction. Sixteen members from one family of twenty were killed. Going through the rubble, I came across a blanket and uncovering it, I saw a young boy with his skull bashed in, his brain was visible. That same night, I packed my children and my wife into the car, and made for the border."[*]

[*] (Recorded September 23, 2013. Kilis, Turkey)

Another interview with Abdullah, a cheesemaker from Aleppo underscored the traumatizing nature of air strikes:

> "It is difficult being here but is better than being back in Syria. We can at least sleep here. I would work all day and come home exhausted, but then could not sleep because most of the airstrikes happened by night. Three, four, five strikes a night. All it took was one, and you could not sleep any more. The constant uncertainty of where the next bomb would land had everyone living on edge, and in extreme stress."[†]

It should be noted that the Syrian-Turkish border is a primary area for medical and humanitarian activity due to the nature of air strikes by Syrian planes. From the beginning of the conflict, airstrikes and the use of barrel bombs, often dropped from helicopters, have contributed disproportionately to the number of civilian casualties. Organizations seeking to provide medical care within Syria but out of harms way strategically place their facilities immediately along the border or within small "in-pouch-ings" of border within Turkey. Jets or helicopters thus seeking to strike them would be forced to fly within Turkish airspace and risk being brought down by Turkish defense.

One representative from Physicians Across Continents emphasized that facilities are placed as absolutely close to the border as is possible, noting several missiles that came

[†] (Recorded Kilis, Turkey. September 28, 2013)

within 1-2 kilometers of the border. The use of ground artillery also drives organizations seeking to establish centers of care ever closer to the border. Since targets can theoretically be struck by ground artillery via a parabola trajectory that doesn't cross Turkish airspace, targets close to the border are generally safe as the Syrian military is careful to leave a buffer zone. An accidental attack across the border would be deemed an unacceptable infringement and risks an aggressive retaliation by the Turkish government, already at tensions with Syria for a multitude of reasons.

3. The Syrian Refugee Crisis in Turkey

Turkey is a country of 78 million people that forms Syria's northern border. Kilis is a small city with an official population of 85,000 positioned directly on the border and is only sixty kilometers from the Syrian city of Aleppo. As such, it has been the site of many refugee programs including two of the largest refugee camps in Turkey: the Elbeyli and Oncupinar camps. Sixty kilometers north of Kilis is the larger city of Gaziantep (population 1.3 million), which is a hub of administration for many organizations working on the refugee crisis. It is home to Gaziantep University (25,000 students; 1,100 faculty) and is one of the largest academic centers in southern Turkey.

In the fourth year of conflict, there are more than 3 million refugees in the region. More than 50,000 Syrians have sought asylum in more than 90 countries outside the region. Inside Syria, an estimated 10.8 million people are in need of humanitarian assistance, including some 6.5 million internally displaced persons.[6] Turkey is home to nearly 1.9

million refugees, 1.7 million of whom are Syrians. Turkey has maintained an emergency response of a consistently high standard and declared a temporary protection regime, ensuring non-refoulement and assistance in 22 camps, where an estimated 217,000 people are staying. Turkey is currently constructing two additional camps.[6]

3a. Regional differences in refugee demographics

There is a dearth of published information on the demographics of Syrian refugees in Turkey. The Turkish government maintains some data primarily from within the official refugee camps. By April 2014, the total number of registered Syrian refugees stood at 735,000, of which only 30% were inside official camps (70% outside).[11] There is little data however on these refugees for whom there is no space inside of the camps. A large number of refugees who are denied entry into the government-sponsored camps live intermixed with the Turkish population in cities along the border, or in makeshift camps with little to no basic infrastructure. Again, while there is no data on the relative migration patterns of refugees, several factors influence where Syrians end up. Many of the wealthiest refugees choose to travel outside of the region completely, particularly those who have established connections in the Arabian Gulf, Europe or the USA. Some travel to Istanbul where they may have a higher chance of finding employment, though it can be a prohibitively expensive journey especially for a family. The poorest cannot afford to travel outside of Syria. Many live in makeshift camps as far into the countryside as they can practically travel with their families and belongings. Geographic proximity is not the only consideration; more important is a safe route into

a conflict-free area. Safe travel between two geographically close points often means a circuitous route to avoid areas of heavy fighting or checkpoints. The focus of this investigation however is limited to refugees in Turkey.

4. Mental Health Care in Kilis, Turkey

Mental health care in Turkey is not an isolated issue, but very much exists within the context of general access to health care and to mental health in Syria. There are both those patients who came to Turkey with pre-existing psychiatric conditions, and those who have developed symptoms subsequent to the start of fighting and relocation. The conflict has destroyed much of the basic health care infrastructure available in northern Syria. Aleppo, as one of Syria's largest cities and closest to territory under the control of the opposition has been hit especially hard. This is relevant to the refugee population in Kilis, which sees a disproportionate numbers from Aleppo and its surrounding villages due to its geographic proximity.

The breakdown of the basic health care infrastructure has created an environment ripe for the spread of infectious disease. An outbreak of cutaneous leishmaniasis was severely exacerbated by the lack of medical pharmaceuticals. In many areas, children are born with no access to vaccinations and epidemics of measles and polio were reported by several news agencies.[20] With the Syrian health system at breaking point, patients battling chronic illnesses including cancer, diabetes, hypertension and heart

disease, and requiring long-term medical assistance have nowhere to turn for essential medical care.[20]

Refugees arrive to Turkey having fled conditions of extreme stress caused by violence, insecurity, and a lack of access to the most basic medical care. They arrive, however, only to deal with problems of a new variety. While the threat of death from an airstrike at any moment is essentially eliminated, they must find ways to adjust to life in a new country and a new language. Many arrive having lost most of their possessions and now rely on government and non-government support to provide their most basic needs. Conditions are often ripe for criminal exploitation, especially outside of the camps where the majority of Syrian refugees reside.[11] Thus, security issues take on a different nature. Those within the camps must struggle with the sudden loss of autonomy and sense of control they have over their lives. Constant pat-downs as they check into and out of the camps, rationing of food, toiletries, and other basic necessities represents a major break in routine from what most are accustomed to and exerts a psychological stress of its own.

The prevalence of psychological stress amongst Syrian refugees is Turkey is high. There have been several studies in the past two years assessing symptoms of stress, namely PTSD, depression and anxiety with prevalence for all conditions ranging from 33.4% (PTSD) to upwards of 50% and even 60% (depression and PTSD, Marwa et al).

Author	Type	Setting	N	Clinical Scales	Findings	Comments
Alpak (2014)	Cross sectional survey, adults	Tent-City Turkey	352		PTSD: 33.4%	Risk factors: female gender, psychiatric family history, 2 or more traumatic experiences
Ozer (2013)	Cross-sectional survey, children (9-18)	Islahiye camp, Turkey	311	Stressful Life Events, Social Provisions Scale, CDI, CRIES-8	Psychological stress: 46% girls, 44% boys Depression: 44%	Severe symptoms of depression females > males
Marwa, 2012, 2013	Cross-sectional, adults	4 refugee camps in Turkey	300		PTSD: 61% Anxiety: 53% Depression: 54%	

Even before the conflict, mental health care services available inside of Syria were limited. With the fighting, mental healthcare has all but become another casualty of war. Prior to the conflict, there were only 70 psychiatrists and two psychiatric hospitals to serve a population of 21 million.[38] Limited access to mental health services is available to patients in Kilis, Turkey via several venues.

There are limited mental health services available through the official refugee camps provided for by the Turkish government. The two main camps in Kilis, Turkey are the Elbeyli Camp and the larger Oncupinar Camp. Together they house over 75,000 refugees.[6] Many more refugees however live outside the camps in Kilis, either unable to

enter the camps due to space restrictions or preferring to live outside. Those preferring to live outside of the camps generally have a means of paying rent or are able to work (as drivers for example). For refugees outside of the camps, there are limited options: Médecins Sans Frontières (MSF), the Organization of Islamic Countries (OIC) and the International Medical Corp (IMC).[6] The IMC, as a co-sponsor of the Kilis Polyclinic (a clinic staffed primarily by Syrian expatriate physicians) had conducted several trainings of the primary care providers in the basic mental health certification as outlined by the WHO in the MHGAP.[39] Anecdotally, however, no mental health treatment was provided by primary care providers at the clinic who were generally inundated caring for between 300-500 patients daily[during my month of observation]. More often, patients in clear psychiatric distress were referred to the OIC which is overseen by Dr. Wisam Mahasneh, a Syrian psychiatrist. MSF operates a small clinic that has one or two psychologists.[40] However, it is unclear whether the psychologists are always themselves native Arabic speakers or must employ translators.

5. Telemental Health: A Review of What Has Been Published

Telepsychiatry is one of the most longstanding telemedicine disciplines, having started over a century ago with the inception of the telephone. Advancements in telecommunications, especially the use of live person-to-person videoconferencing have enhanced the experience for diagnosis, therapy, follow-up, pharmacotherapy management, and psychiatric education for both patient and provider.[41] The primary advantages offered by telepsychiatry revolve around access. Mental health services can

be extended to geographies and populations lacking in adequately trained or adequately resourced personnel. Even where access to mental health services exists at a basic level, access to increasingly specialized providers can be provided by teleconsultations.

5a. Effectiveness of Telepsychiatry

Telemental health is the use of telemedicine to provide mental health assessment and treatment at a distance.[23] Telepsychiatry has been shown to be effective in its ability to increase access, improving basic outcomes, and being well-accepted. Hilty et al, in a 2013 review assessed the effectiveness of telepsychiatry related to clinical care. They reviewed the diagnostic (reliability/validity) process, populations (child, geriatric, and ethnic), new models for providing telepsychiatry, settings (collaborative care, asynchronous, emergency, home health), mental health disorders, and cost-effectiveness.[23]

Hilty et al provided a framework by which to evaluate the effectiveness of telemental.[23] Effectiveness was evaluated on the basis of access (increased access to care, improved level or quality of care, specificity to the need, whether used as a complementary or primary service); quality of care (reliability/validity, diagnosis and assessment, direction of limitations; cost, technology (data on failures, time and effort of hidden technologies); administration (feasibility and required level of coordination).

Yeung et al conducted an assessment of the feasibility and effectiveness of telepsychiatry for Chinese immigrants in a nursing home. Overall, six patients were referred for psychiatric intervention via telepsychiatry, all who greatly improved. Furthermore, the subjects, their families, and the nursing staff were all highly satisfied with the telepsychiatry service.[34]

5b. Telepsychiatry in Different Settings

Consultation to primary care services versus management. Several studies have demonstrated positive outcomes for telepsychiatry when used as a consult service to primary care sites.[23] The diagnosis and medications were changed in 91-57% of cases, respectively.[27] Provider knowledge, skill, and complexity of questions improved over time, particularly in rural primary care providers.[28]

Emergency Room. Telepsychiatry in the emergency room has been slow to develop as compared with other clinical areas and little has been published regarding the effectiveness of its use in this setting. Sorvaniemi however described that most programs found themselves to be moderately successful (3/5 or 4/5, 5 being best) and a high level of both patient and physician satisfaction with the service (4.4/5).[29]

5c. Telepsychiatry and Access to Mental Health Care

Telepsychiatry has been demonstrated to greatly increase access to care, with few exceptions.[23] Patients report less travel, absence from work, waiting time, more clinical

choice and control, and better outcomes.[23] A few issues, however, remain unresolved for patients: (1) privacy and confidentiality where patients prefer services delivered from elsewhere or wanting total anonymity, (2) cultural and language nuances related to telemental health care, and (3) inadequate payment for indigent, rural, and other underserved patients.[23]

5d. Transition from Traditional Psychiatry

Several studies have looked at the transition from traditional psychiatry to telepsychiatry in Native American populations. Wilshire et al recommends telepsychiatry based on the experiences of the a wellness center treating a large southwestern Native American population.[26] Particular emphasis was placed on the advantages telepsychiatry provided for patients otherwise having to travel large distances at their personal expense to see a psychiatrist.

5e. Acceptability of Telepsychiatry

Several studies have examined patients' acceptability of being evaluated by telepsychiatry. Rohland surveyed sixty-seven residents in a rural Midwestern state to determine which factors influence their willingness to receive mental health services and found that two-thirds of survey respondents were willing to participate in telepsychiatry. Those that were reluctant had concerns over confidentiality and the lack of a personal provider-patient relationship. Older respondents were found to be less

willing than younger respondents to the use of telemedicine.[30] Shore conducted a study to assess acceptability of telepsychiatry in fifty-three American Indian veterans. Overall, telepsychiatry was well received and comparable in level of patient comfort, satisfaction, and cultural acceptance to in-person interviews. Surveys to assess the process were furthermore administered to both patients and interviewers. They found evidence to suggest that interviewers sometimes interpreted participant satisfaction as significantly less favorable that the participants that actually responded.[31]

5f. Transcultural Telepsychiatry

Several studies have examined the acceptability of transcultural telepsychiatry. Mucic reports a project implemented over 34 months with sixty-one patients, mostly refugees (45), asylum seekers (12), and migrants (1). Nine languages were spoken over the study period with an average of 5.2 sessions per patient. Patients reported a high level of satisfaction and willingness to use telepsychiatry again and recommend it to others. Importantly, they preferred telepsychiatry in their mother tongue, rather than interpreter-assisted care.[33]

Shore et al in a study of American Indian veterans reported that, despite cultural differences between interviewer and patient, telepsychiatry was nonetheless an acceptable means for psychiatric assessment of American Indian veterans and an opportunity to provide mental health (MH) services to a population that may otherwise not have access.

5g. International Telepsychiatry

There is a dearth of information on the use of telepsychiatry internationally. The Global Healthcare Applications Projects (GHAP) and the International Society for Mental Health Online (ISMHO) have published guidelines on the domestic use of telemedicine and telepsychiatry, respectively, but neither mention international telepsychiatry.[35]

Thara et al report on the implementation of a telepsychiatry program in a rural clinic in Chennai, South India with 412 enrolled patients. The authors outlined their experience in terms of identifying a suitable technology, location, and collaborating NGO. Teleconsultation was implemented with staff and awareness of the program to the community implemented through a number of marketing strategies. Overall, they reported success of their program in terms of increasing access to care, and providing treatment options for patients that would otherwise have had no access to mental health services.[32]

Bahloul et al published a review in 2013 of publications on the cross-border use of telepsychiatry. Inclusion criteria were cross-border studies examining the use of telepsychiatry in clinical settings conducted in real time. Exclusion criteria included the domestic use of telepsychiatry in rural areas, use of real-time modalities other than videoconferencing and non-real-time telepsychiatry. The search resulted in only four studies that met the full criteria. No randomized control trials were found and all four

were feasibility studies. None of the studies reviewed measured clinical outcomes. However, those that reported on patient satisfaction all reported high levels of satisfaction with telepsychiatry.[35]

Telepsychiatry is a cost-effective and clinically effective modality for increasing access to mental health care with high rates of patient and provider satisfaction. More research is needed to examine telepsychiatry with refugees and, more specifically, refugees of the Syrian crisis. However, enough preliminary data exists to support telepsychiatry as a potentially important modality for bringing critically needed mental health services to the Syrian refugee crisis.

6. The potential utilization of telepsychiatry as an intervention[‡,§] (PASSPORT Study)

6a. Background

We are interested in assessing refugees' openness to telepsychiatry through surveys conducted at a polyclinic in Kilis, Turkey. Given the situation, there is a lack of sufficiently trained mental health providers to deal with the number of potentially traumatized persons. Furthermore, ability to communicate directly in a patient's native language is especially important when dealing with psychological trauma. The language barrier encompasses a number of subtle expressions and body language cues that are even more likely to be employed by the traumatized patient discussing a sensitive subject. Patients who are reserved about divulging sensitive information to a psychiatrist are even less likely to do so in the presence of a translator, no matter how empathetic or experienced.

Furthermore, telemedicine has and continues to be employed in the current crisis. The Union of Syrian Medical Organizations (UOSSM) operates a tele-intensive care unit (tele-ICU) inside of Syria that is overseen by physicians in the US and the Gulf on rotating schedules. In earlier work, Bahloul et al highlighted the potential utility of

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‡ *This chapter is modified version of our study as published in the Journal of Telemedicine and E-health, October 2014.*
Jefee-Bahloul, H; Moustafa, M* Shebl, F.M, Barkil-Oteo, A. Pilot Assessment and Survey of Syrian Refugees' Psychological Stress and Openness to Referral for Telepsychiatry (PASSPORT Study). Journal of Telemedicine and e-Health, 2014. Vol 20, No 10.

§ I was an active participant in the design of this study and collected all the data in Kilis, Turkey.

telepsychiatry as a gap-filling strategy that can help increase access to MH services for refugees and other underserved populations across borders.[35] MSF reported major gaps in the available medical care for refugees in Lebanon[7] and an 11% prevalence of psychological trauma and mental illness among Syrian refugees in Jordan.[8] While some research is being conducted at Gaziantep University, Gaziantep, Turkey, on the mental health needs of Syrian refugees, no data has yet been published.[9]

The UN Refugee Agency (UNHCR) reported more than 500,000 refugees registered in over 20 Turkish refugee camps by November 2013.[11] Kilis Province is located in south-central Turkey, adjacent to the Syrian border. The refugee camps around Kilis accommodate approximately 38,000 Syrian refugees, with another 26,000 living outside camps.[11,12] Socially and psychologically affected refugees suffer from a language barrier and lack of MH services.[13]

The acceptance of telepsychiatry by refugees has been reported by Mucic.[14,33] Some of the patient population in the studies of Mucic,[14,33] were from Arabic-speaking regions (e.g., Iraq, Syria, and Morocco). However, little is known about Syrian refugees' openness and acceptance of MH services provided via telepsychiatry, especially under the stress of the ongoing and potentially protracted conflict. Given the relative scarcity of MH resources, it is imperative to investigate interventions that would be accepted by Syrian refugees. We report a study that answers three main questions. The first is providing needed data on the prevalence of psychological stress among Syrian refugees in Turkey. The second question is whether those refugees are open to MH services in general, and the third is their openness to telepsychiatry.

6b. Materials and Methods

The survey population consisted of adult Syrian refugee patients (≥18 years of age) who presented to a polyclinic in Kilis seeking primary care. The only demographic information recorded was gender (male/female) and language (monolingual [Arabic]/bilingual [Arabic and Turkish]). To screen for psychological stress, we used the HADStress Screening tool, which has been designed and tested on Ethiopian and Somali refugees (mostly Muslims).[14,33] HADStress has demonstrated a high association with posttraumatic stress disorder (PTSD) checklist scores in the validation studies, and hence there is an association with posttraumatic stress symptoms in the refugee population.[14,33] The screening tool contains four questions concerning headache, appetite changes, dizziness or lightheadedness, and sleep changes. A cutoff score of 3 or higher has been shown to correlate with PTSD and warrants additional psychiatric evaluation.[14] Even though other studies suggested a lower cutoff of 2 or more[17] we chose to use the more conservative cutoff of 3 or more. HADStress was chosen over other screening tools for its efficiency in a disaster setting. The non "threatening'' or ''re-traumatizing'' nature of its questions led us to anticipate better acceptance by refugees in disaster setting compared with other PTSD screening tools such as the Trauma Screening Questionnaire or the Primary Care PTSD screen.

To answer the second and third questions, patient refugees were asked if they felt that they would benefit from seeing a psychiatrist. Patients who were open to seeing a psychiatrist were asked about their preference between a Turkish-speaking versus Arabic-speaking psychiatrist. Patients who preferred an Arabic-speaking psychiatrist were asked if they were open to seeing a psychiatrist via tele- psychiatry or if it had to

be face-to-face. The survey was conducted in September 2013 and was administered verbally in Arabic by an Arabic-speaking medical student. A verbal consent was obtained from each participant prior to administering the survey. This study received ethics approval by the Institutional Review Board at Yale University (HSC protocol 1308012519).

In data analysis, patients were categorized as HADStress positive with a score of 3 or more and negative with a score of 2 or less. The bivariate analysis was conducted using chi-squared tests, and the multivariable analysis was conducted by using logistic regression to calculate the odds ratio (OR) and 95% confidence intervals (95% CIs).

6c. Results

Table 1. Study Subjects' Characteristics in Relationship to the Need of Psychiatrist and Accepting Telepsychiatry

CHARACTERISTIC	NEED PSYCHIATRIST		*P* VALUE[a]	ACCEPTING TELEPSYCHIATRY		*P* VALUE[a]
	NO	YES		NO	YES	
Sex			0.04			0.64
Men	130 (70.7%)	54 (29.4%)		27 (51.9%)	25 (48.1%)	
Women	100 (60.2%)	66 (39.8%)		36 (56.3%)	28 (43.7%)	
Bilingual			0.03			0.66
No	213 (67.6%)	102 (32.4%)		52 (53.1%)	46 (46.9%)	
Yes	17 (50%)	17 (50%)		10 (58.8%)	7 (41.2%)	
HADStress screen[b]			< 0.0001			0.06
Negative	152 (75.3%)	50 (24.7%)		22 (44.0%)	28 (56.0%)	
Positive	78 (53.1%)	69 (46.9%)		40 (61.5%)	25 (38.5%)	
Preferred language of psychiatrist			NA			0.65
Arabic	NA	49		26 (54.2%)	22 (45.8%)	
Turkish	NA	1		1 (100%)	0 (0%)	
Either	NA	69		36 (53.7%)	31 (46.3%)	

[a]By chi-squared test.

[b]Negative, HADStress screen score of ≤2; positive, HADStress screen score of ≥3.

NA, not applicable.

The study included 354 subjects. More than half were males (186 [52.5%]). Only 34 (9.6%) reported being bilingual. Those bilingual refugees are Syrian citizens living in communities near the Turkish borders in Northern Syria, and they speak both Arabic and Turkish languages fluently.

First question: prevalence of Psychological Stress

The first question sought to establish the presence of psychological stress. In our sample, 148 (41.8%) were HADStress positive. The HADStress screen frequencies of scores of 0, 1, 2, 3, and 4 were 16 (18.7%), 62 (17.6%), 77 (21.8%), 77 (21.8%), and 71 (20.1%), respectively. Of the study subjects, 165 (46.7%) reported dizziness, 156 (44.2%) change in appetite, 218 (61.8%) sleep disturbance, and 192 (54.4%) headache.

Subjects were more likely to report the need to see a psychiatrist if they were women, were bilingual, had a headache, sleep disorder, appetite disorder, or dizziness, or were positive on the HADStress screen. Of note is that patients who reported the need for a psychi- atrist were more likely to be bilingual compared with patients who reported no need of a psychiatrist (14.3% versus 7.4%, respectively) (Table 1).

Second question: Acceptability to Receiving Psychiatric Care

Our second question sought to assess patients' acceptability of receiving further evaluation by a psychiatrist. Approximately one-third of the study subjects (120 [34.3%]) expressed their need to see a psychiatrist. Of those, 69 (56%) were amenable to being seen by a psychiatrist who spoke either Arabic or Turkish, 49 (41.2%) preferred Arabic only, and 1 (0.82%) preferred Turkish only. Of the 103 subjects who

gave a reason for not needing a psychiatrist, as reasons 64 (62.1%) reported ‘‘no need,’’ 3 (2.91) ‘‘can speak to family, friend, or neighbor,’’ 3 (2.91) ‘‘will not benefit, do not trust, have previous bad experience,’’ 3 (2.91) ‘‘do not know what is a psychiatrist,’’ 2 (1.94) ‘‘given the circumstances what I feel is normal,’’ 2 (1.94) ‘‘no time, no ride,’’ and 4 (3.88) ‘‘I only need God.’’

Third Question: Openness to telepsychiatry

Of the 120 subjects who reported the need to see a psychiatrist, only 53(45.7%) reported their acceptance of telepsychiatry. Only 15 subjects gave a reason for not choosing telepsychiatry. Some of the reasons for not accepting telepsychiatry included ‘‘security of the Internet’’ (3 [20%]), ‘‘better communication in person’’ (3 [20%]), and ‘‘not knowing what is telepsychiatry’’ (1 [6.67%]). Women, those who were bilingual, and those who had positive HADStress status were less likely to accept telepsychiatry; however, this did not reach statistical significance. Subjects who reported dizziness were significantly less likely to accept telepsychiatry: OR (95% CI), 0.43 (0.20–0.91). In multivariable logistic regression, adjusting for gender, those with positive HADStress status were less likely to report ac- cepting telepsychiatry; however, this association was not significant: OR (95% CI), 0.49 (0.22–1.06) (Table 1).

6d. Study Discussion

Our study reported 41.8% of the surveyed sample to have a score on HADStress that correlates with PTSD. Only 34% of the whole sample reported a perceived need to see a psychiatrist. The majority of patients from our sample who wanted to see a psychiatrist preferred Arabic-speaking psychiatrists. In our experience in this field study, there are

only one or two Arabic-speaking psychiatrists in Kilis. Patients who were bilingual in our sample were more likely to be open to seeing a psychiatrist compared with those who were monolingual. Subjects with elevated HADStress scores were more likely to accept psychiatric services.

With regard to telepsychiatry, a minority of the patients was open to it. HADStress scores could not predict the openness to tele-psychiatry. The difference between these findings and the findings of the study of Mucic[33] that reported high acceptability of tele-psychiatry by refugees could be due to the pre-intervention nature of our survey compared with postintervention (i.e., patients in the prior study had already experienced telepsychiatry, unlike our sample population). Telemedicine in general is not developed in Syria, or the Middle East as a region, and patients are not familiar with, and reportedly hesitant about, this technology.[18] Also, our study population is fleeing a civil war scene with constant security persecutions, and this could explain some of the security-related concerns when they were asked about telepsychiatry. Sadly, this is not unjustified, as the monitoring of Internet-based communication and persecution of individuals have been a well-documented war tactic in this conflict.

6e. Limitations

Our findings are limited as we did not account for factors that might influence perceived need to see a psychiatrist or openness to telepsychiatry (e.g., age, education, past or current psychiatric diagnosis and treatment).

6f. Conclusions

Our study reports a partial acceptance of Syrian refugees for telepsychiatric services despite the high prevalence of psychological stress. Given the growing need for effective MH services in this population, telepsychiatry can be used in providing ongoing training to primary care physicians or providing tele-consultations for difficult cases only. This model has been studied within borders[19] and can be tested across borders to help Syrian refugees in future studies.

7. Extended Discussion and Personal Reflections

While a minority of study participants expressed interest in telepsychiatry, over 43% and 48% of women and men, respectively, did indicate that they were open to the modality. Given the number of refugees, this still indicates a potentially large enough population of patients that, if adequately provided with telemental health services, would substantially lessen the burden of untreated psychiatric disease in the region. This is even truer considering the overwhelming data indicating high levels of patient and provider satisfaction with telepsychiatry from numerous studies, several of which were conducted internationally. Concerns regarding security, however, while often a stated issue with telepsychiatry even in non-combat locations, are perhaps an even greater problem facing the implementation of such a program in Syria and its neighboring countries given the police surveillance and political violence described earlier. More research is needed to identify the level of primary care other mental health interest in telepsychiatry, as their participation will be integral to the implementation of any telepsychiatry program.

7a. Mental health stigma in Arab populations

It is difficult to articulate a singular Arab or Muslim view on mental health as both descriptors encompass a massive geography with many heterogeneous populations, cultures, and even languages. There are however, several commonly recurring themes uniquely encountered in the Middle East with which any clinician working in the region

must be familiar. Syrian refugee experiences with mental health are no doubt influenced by their pre-existing cultural views on psychiatric illness. El-Islam notes that in Arab-Muslim societies, the concept of "*majnoon"* meaning "crazy person" (literally, possessed by a *jinn*) is often applied to any individual requiring psychiatric attention. Religion is often invoked as playing a role in the etiology, course or treatment for many mental health conditions, especially when non-normative behaviors are outwardly exhibited.[37] Anecdotally, many patients and even providers, harbored a dismissive attitude towards mental health disease as a less serious problem in the face of patients suffering from more impressive physical manifestations of trauma.

As of February 2015, no effective telepsychiatry program has yet been implemented in Kilis Turkey. There are numerous obstacles to implementation of an effective teleconsultation program, including security, medical-legal obstacles, and buy-in of health care providers. Mental health services, specifically, face numerous challenges beyond those of providing any health care work in the region. Even prior to war, there were many challenges to delivering mental health care in Syria. Widely permeating stigmas amongst Arab and Muslim populations[37] against mental health disease persist in the current situation. Bringing up the issue of mental health care to one of the directors of the clinic in which I was working, he explained to me their distinction between "hot" and "cold" cases. Only the most dire, life-threatening conditions were considered "hot." Mental health problems fell firmly in the "cold" category.

For many patients, diagnosis of psychological stress comes as no surprise. It was not uncommon to receive a variation of this response I recorded of an older gentleman in his late fifties, in answer to my question of whether or not he was depressed and would benefit from seeing a psychiatrist:

> "Of course I am depressed! All of Syria is depressed. We've lost our homes, our children. We are living in a country that is not ours, unwelcome guests. We live cramped in tiny homes—we are a family of 17 people in one apartment with one bathroom. Our kids cannot go to school. We don't speak the language. We do not need a psychiatrist, we need to go home!" (Recorded at Kilis Polyclinic, Turkey September 21, 2013)

More research is needed to identify how views on mental health illness have changed with the conflict and refugee crisis, in particular given the collective recognition that stress levels are not normal.

7b. Targeting of Medical Personnel

Personally, one of the most challenging concepts I was forced to cope with was that of the active targeting of medical providers. There are documented incidents where after a barrel bomb is dropped on a civilian population, snipers target anyone running into the wreckage to help.[22,44] Doctors caught treating the "enemy" are literally taken and publically slaughtered to make examples. One of the doctors I worked with in the clinic shared with me a few of the threats he received on a regular basis. He showed me on his

phone a text that said “we will slaughter you.” He showed me postings published online detailing his whereabouts, the names of his family members, along with the most vulgar threats regarding what will be done with him and his family.

7c. Primary Care at the Kilis Polyclinic

Volunteering at the polyclinic in Kilis was eye opening in many regards. I experienced first hand the challenges of attempting to deliver care in the face of overwhelming need and even more overwhelming lack of resources. Despite being supported by two major NGO’s, the clinic had almost no medications for its patients. While more medications existed in the many pharmacies throughout Kilis, they were essentially unavailable given their costs. The economic pressure of being a Syrian refugee in Turkey is exacerbated by the increased cost of living in Turkey as compared with Syria. Prior to the conflict, life in Syria was very affordable. As one refugee told me, “There was no such thing as hunger in Syria.” Food, housing, even basic medications were inexpensive and accessible. For many, the cost of a sandwich in Turkey was ten or more times more expensive than in Syria prior to the conflict. Those having calculated thus to get by in Turkey by based on their Syrian savings quickly realized that they had severely misjudged.[15]

The conditions in which the physicians worked were challenging, and it was inspirational to witness their resolve in the face of such adversity. I wrote after my first week in clinic:

> After another day in clinic, I can report that it was not a misinterpretation that the clinic is really out of medications. I spent some time today in the pharmacy to learn why, and in general the process of acquiring the medications. Supposedly, the clinic is supported by two major, international organizations… However, a doctor and the pharmacists explained to me that there is little coordination and a lot falls between the cracks. The problems are structural, and funds are limited. Promises are unfulfilled, and the people are caught in the middle with no treatments…
>
> Another woman comes in with the most beautiful two-year old boy. He cries when I try playing with him, and she tells me that she is caring for him after his mother was killed two months ago. An elderly woman comes in and after her visit asks the doctor for milk for her 5-month old grandson. He tells her there is no more formula in the pharmacy. She tells him, "You know me and know that I don't ask, but the *miskeen* (poor boy) is hungry and is just 5-months." He apologizes and tells her to try coming Friday, and if not to give him cows milk.

The challenges of providing care are not limited to the lack of resources. A culture of war, violence, and chronic lack fuels a culture of corruption. Millions of dollars from international charities are poured into the region and into the hands of distributors charged with the task of fairly distributing the resources. Many of these distributors are themselves victims of the conflict with families, ambitions, and dreams of escape. Suddenly massive resources are placed in front of them that they are required to spend

on others. It was almost impossible to avoid. In another entry I wrote:

> My driver tells me there is no shortage of corruption, explaining to me how meds "en route" to Syria are smuggled back across the border to Turkey where they are sold for profit. I sympathize with the physicians who are constantly making diagnoses and writing the appropriate prescriptions, knowing that their patients cannot get them. It's the kind of thing that wears on you quick, and it's easy to throw in the towel.

There was also very poor health literacy, which added to the challenges of providing care. Patients often came in requesting a medication for a relative at home. "Doc I need something for my son who has a fever." Or "my mom has some pain in her stomach and diabetes, I need a medication." Some got very upset when the doctors refused to prescribe anything without first examining the patients. "Why are you being difficult?" they asked.

7d. Lost Dreams in Syria's War

One of my most difficult encounters involved a young boy I encountered making dessert in a pastry shop. I learned that he was fifteen years old and was taken by his demeanor and maturity for his age. I sensed that he was of extreme intelligence. I asked him what brought him to Syria and he named Syria's current president, Bashar, adding, "May God rid us of him." I asked him what he was wanted to be and he replied that there can be no school now that he has to provide for his family. I asked him what he

wanted to be before he came to Turkey and he replied, “I wanted to be a doctor.”

This conflict is ten million times more about a tragedy of human suffering and unfulfilled dreams than it is about a political clash. A surprising realization for me was the level to which the political conflict underlying the crisis was a non-issue for refugees. In clinic one day I spoke with an older woman who had just arrived to Kilis. She came from Azaz after fighting erupted between ISIS and the Free Syrian Army and I wanted to corroborate a story I had heard and asked her for her opinion. She gave me a reply that represents what this conflict means for most Syrians: she didn’t even know the names of the groups involved. She said, “I have no idea what is going on. We just heard the gunfire and shelling and so packed up our stuff and left.”

7e. A brief note on volunteerism

The Syrian refugee crisis highlights many of the problems with international interest in humanitarian disasters. There is no shortage of writings on war tourism, neo-colonialism, the White Savior-Industrial complex, the dangers of brief involvement in crises overseas when there are plenty of crises at home and often down the street. NGOs, international volunteers, and even academic institutions all have an element of self interest in choosing the places in which they become involved, and this was a fact deeply understood by the Syrian physicians and health care workers at the forefront of the crisis. The general challenges to health care delivery in Syria are different from those commonly encountered in other low to middle income countries, where resources

and infrastructure are often a constant lack. Given the nature of the conflict, there was very much the added concern of information security, which in many ways means less room for careless volunteer involvement.

Suffice to say that I traveled to Turkey very much aware of my position as a medical student from the west, there only briefly. I established strict rules of engagement taking care not to assume more responsibility than I would be allowed as a medical student at my home academic institution. Beyond my research project I was involved in helping the clinic to acquire, for example, a more steady supply of medications of which they were chronically in low supply. We helped establish a relationship, for example, with a pharmacy in Gaziantep that provided medications at a less expensive rate than where they had been currently filling their orders.

My conclusions are that there is room for meaningful involvement and support of the Syrian and Turkish health care workers who have devoted their lives to this crisis. In general, any engagement should be guided by two principles: 1) Do no harm and 2) Support of priorities as seen by the local experts. Efforts that establish long-term academic partnerships should be favored over short-term interventions. However, of the development foci, health care delivery is perhaps the most forgiving to short-term involvement when the alternative is no care at all. It is very difficult to argue against providing treatment for the patient in acute psychiatric crisis or in need of emergent surgery, particularly in an evolving refugee situation where more long-term support is being established but not yet available.

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