

**IS CONFLICT A FACTOR IN A POPULATION'S QUALITY OF LIFE? A
COMPARATIVE STUDY OF UNIVERSITY STUDENTS IN
THE PALESTINIAN TERRITORIES AND JORDAN**

by

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ABSTRACT

As nearly one third of the world's population lives in an area that is in some way touched by war, researchers have long been interested in the varied impacts of conflict on civilians. Many indicators, measuring both physical and mental constructs, have been assessed in war-torn populations from around the world, one of which is health-related quality of life (HRQoL). The occupied Palestinian Territories (oPt) are one region in which copious research on health indicators has been undertaken in an effort to understand how long-term conflict manifests itself in noncombatant populations. However, existing studies focus primarily on indicators within the Palestinian population itself that impact HRQoL, and not on the extent to which the presence of the conflict and its consequences disturb physical and mental health outcomes compared to areas without conflict. The purpose of this study is to evaluate the impact of long-term conflict by comparing HRQoL in the oPt and the neighboring country of Jordan, as well as to assess how demographic factors such as socioeconomic status and household size can moderate or aggravate this impact. The potential mediating factors of insecurity and perceived stress will also be assessed. This study found that the presence of conflict was not the most significant predictor of low HRQoL. The mitigating factor of a traditional foundation of mental resilience in Palestinian culture is addressed as a potential explanation for this result. The implications of this study are wide-ranging, particularly in their ability to contribute to healthcare policy recommendations in war-affected areas, and to bolster our understanding of the health status and needs of those living in these areas.

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CHAPTER ONE: INTRODUCTION

War and the consequences of its aftermath can have devastating effects on communities and individuals. Although the ramifications of war and the ensuing violence and civic disruption are easy to measure empirically, such as with numbers of casualties or displaced civilians, it can be more difficult to measure the impacts on intangible health indicators such as quality of life. Several studies in war-torn regions such as Croatia, Bosnia, and Northern Vietnam have shown that the direct and indirect impacts of war, including the constant social stress, can be brutally stunting on the growth of a population, as well as on its future economic prosperity and development (Babic-Banaszak et al., 2002; Sundquist, Behmen-Vincevic, & Johansson, 1998; Teerawichitchainan & Korinek, 2012). Arguably, these are the effects that tend to ripple into future generations and forever change how a person and a culture views itself and its place in the world.

Indeed, the International Committee of the Red Cross argues that one of the largest, yet least appreciated, humanitarian crises of today is health insecurity due to violence (Nathanson, 2011). As war and political instability threaten nations (from pressures of external actors to conflicts of ethnic differences and emerging nationalism), so do the impacts of war on populations, including effects on socioeconomic systems, social cohesion, public health and the healthcare system, health outcomes, and quality of life (Pederson, 2002). Unlike tragedies or hardships experienced by individuals, conflict is unique in that every level of a person's experience is colored by "collective and social suffering." Further, thus far the literature has failed to adequately address how these collective stressors directly impact an individual's health status (McNeely et al., 2014).

The Israeli-Palestinian Conflict

One area that has experienced conflict for many decades is the occupied Palestinian Territories (oPt). In 1948, in what was previously referred to as the British Mandate Palestine, the state of Israel was forcibly established, and about 75% of the existing Palestinian population was pushed out into the neighboring countries, creating one of the largest refugee populations in history. Since that time, periods of conflict between Israel, the Palestinians, and the surrounding Arab nations have been punctuated by occasional peace talks and conferences. However, the ultimate result has been the increased whittling away of the remaining Palestinian territories (split between the West Bank and the Gaza Strip), an Israeli occupation that has led to a depressed Palestinian economy, terrorism against Israelis, and a situation of gridlock that has caused endless turmoil in the Middle East. The established Palestinian governmental entity, the Palestinian National Authority (PNA), does not have the typical autonomy of a state's leadership, such as control over borders and movement both within and outside of the country, and has become widely seen as a bloated and corrupt entity that has tried and failed to engage in meaningful peace talks (Giacaman et al., 2009).

The oPt consists of two separate areas: the Gaza Strip, with about one third of the Palestinian population, and the West Bank, with the remainder of the population. Differences in governance and policy have led to very different circumstances in each of the two populations; the Israeli blockade in Gaza is much more severe than in the West Bank, so it is difficult to bring in construction supplies, imports of food, and other needs of daily life. Hamas, the political organization in control of the Gaza Strip, and generally considered a terrorist organization by most of the West, was thought to be popular in the most recent elections in Gaza at least in part because they were often the sole available provider of social support, such as health services, that

citizens were otherwise denied (Hilsenrath, 2005). While the West Bank is under military occupation and experiences continuous settlement activity, the Gaza Strip is subject to much more regular direct ground and air assault (as seen most recently in the summer of 2014), as opposed to the more steady, but less lethal, clashes, arrests, and protests in the West Bank (although dozens of Palestinians in the West Bank are killed by Israeli forces annually).

Movement restrictions in both territories, however, can leave ill patients and laboring mothers waiting for hours at checkpoints (which now number over 700 throughout the West Bank) or physical barriers, even those traveling within the territories themselves. Medical school students and hospital employees face difficulty traveling to and from home and work, while exit permits for patients seeking treatment abroad are routinely delayed or denied. Furthermore, even citizens who can access healthcare often cannot afford it due to inability to travel to work (as the result of roadblocks, checkpoints, or sudden changes in required documentation) or destruction of their farms and property due to fighting or development of settlements (Worth, Metcalfe, Boyd, Worrall, & Canarutto, 2009). Indeed, although there are seemingly constant political negotiations regarding the conflict, much of the international focus has shifted from political to humanitarian issues, based on the needs of the devolving situation (Whittall, 2009). The need for a fundamental shift in how this conflict is approached is long overdue.

Socioeconomic Situation and Healthcare in the oPt

The United Nations (UN) and the World Health Organization (WHO) have quite clearly expressed that health is a right; specifically, they have stated that “the right to the enjoyment of the highest attainable standard of physical and mental health” should be a standard of human rights (Office of the United Nations High Commissioner for Human Rights, 2012).

Unfortunately, the presence of war makes it extremely difficult for the physical and mental health of populations to be maintained. Aside from the direct impacts of conflict, the consequences of war and political instability lead to a downward socioeconomic spiral that is difficult to recover from and that makes it significantly more difficult for an individual to prosper mentally and physically. For example, homelessness in such contexts is rampant, often due to demolition of houses or eviction, either directly (such as authorities suddenly demanding building permits) or indirectly (as a result of shelling or other physical conflict). The economic hardship of having to rebuild one's home or relocate can often lead to a cycle of poverty. The widespread impact on the livelihoods of many average citizens, as seen with the seizure of lands or the destruction of crops, is a further cause of stress and insecurity, as well as a source of poverty and hunger (Batjini et al., 2009).

The situation in the oPt is further complicated by other features of the conflict. Within the West Bank, there are an ever-growing number of settlements, housing hundreds of thousands of Israelis. The presence of these settlements, along with the roads built around them to bypass Palestinian towns and villages and the separation wall that winds throughout the West Bank, has slowly but steadily chipped away at any potential cohesive Palestinian state. Available land in the West Bank has been almost halved by the existence of the separation wall and Israeli-only roads and settlements. The wall, built during the second Intifada in 2002, is not yet complete at 422 miles. Nearly 85% of the wall is within the 1967 border (known as the Green Line), which is generally considered to be the border of any future Palestinian state. Ten years ago, the International Court of Justice found the construction of the wall contrary to international law, yet construction persists, often winding directly through villages, cutting off farmers from their land, and separating families (Zonszein, 2014). The presence of these physical barriers has made it

even more difficult for Palestinians to travel within the territory, and is a major cause of not just political instability, but poverty and insecurity among the Palestinians. Furthermore, since the 1967 war, Palestinians have been almost entirely cut off from international trade means, leaving them dependent on Israeli markets and international donors for financial support, which only more deeply entrenches Palestinian reliance on mostly uncontrollable external forces, fostering a deep and debilitating cycle of poverty (Qato, 2004). Many Palestinians, responding to a lack of work in the territories, instead work in Israel, and the territory's GDP is greatly impacted by factors that influence this practice, such as frequency of border closures and the amount of employment available for Palestinians across the border (Fischer, Alonso-Gamo, & Erickson von Allmen, 2001).

The Palestinian healthcare system has also suffered. Following the Oslo Accords in 1994, control of the health system shifted from Israel to the newly formed PNA. Although this afforded the Palestinian people and government a measure of autonomy and independence, they were unprepared to tackle the insurmountable task of rebuilding a health system with the severe transportation, movement, and economic restrictions imposed on the oPt (Venugopal, Greenough, Ehrhardt, Brahmhatt, & Oweis, 2007). Due to the rapidly increasing need for health workers, particularly in times of increased conflict such as the second Intifada, many individuals with limited training or experience were given positions that were often new and without precedent. The issue is further complicated when the personnel charged with fostering transitions for the population, such as social workers and healthcare personnel, are also impacted by the conflict and are suffering on a personal level due to the loss of their own homes or loved ones (Lindsay, 2007; Palgi, Ben-Ezra, & Shrira, 2012). Lack of both nation-wide standards and an infrastructure that can properly evaluate and report on health services has led to inconsistent

practices that are substandard in some cases (Khatib, Daoud, Abu-Rmeileh, Mataria, & McCaig, 2008).

Shortly after the Oslo Accords, the Palestinian physician and political leader Haider Abdel-Shafi said, “We cannot take care of health and education as long as we live under occupation” (Marton, 2011). Indeed, only two years after the Accords, 38% of health workers were unable to reach their workplace, and half of the hospitals saw a 50% decrease in emergency cases due to patient inability to cross checkpoints or receive permission from Israel to leave their area (Hall & Giel, 1998). Around this time period, the UN recognized the need to strengthen the weak health system of the oPt. They found the most pressing issues to be improving hospital and clinic infrastructure, developing a comprehensive national policy, increasing regulations and licensing guidelines, focusing on prevention, and improving services through education and information systems. Poor governance in the territories had led to deterioration in all of these sectors, but tax revenues have only decreased and the government of the oPt is largely ineffective in raising the necessary funds.

While an increase in healthcare spending was anticipated in 1998, by 2003 spending had actually decreased from \$250 million to \$230 million, in conjunction with a near doubling of the poverty rate. Currently, the fragmentation of healthcare providers (including private groups, non-profit NGOs, the United Nations Relief and Working Agency for Palestinian Refugees in the Near East [UNRWA], and the PNA) due to such budget fluctuations ensures that it is difficult for patients to find and receive consistent and adequate care. A major obstacle for the Palestinian healthcare system is an overreliance on the support of NGOs and international donors, which can not only vary in their level of financial support, but may also have their own motivations and methods that are not the most beneficial for the local populations they are meant to serve

(Challand, 2008). This factor is particularly important when considering that more than half of Palestinians are considered as living below the national poverty line, and thus they depend on the regular availability of such services (Mataria, Raad, Abu-Zaineh, & Donaldson, 2010). As so many Palestinians are poor and/or unemployed, relatively affordable preventive measures such as cancer screenings are too cost prohibitive for them, and the widely available government insurance is not very comprehensive (Saca-Hazboun & Glennon, 2011).

The RAND Corporation published a general report in 2007 detailing the many components required to successfully rebuild a Palestinian state, including a successful social safety net. They cite domestic and international mobility as the single most influential factor in infrastructure reconstruction. However, they go on to note that while there are significant gaps in access to care, there are many strengths that policymakers can capitalize upon to benefit not just the health of the Palestinian people, but also the long-term prospects for peace and stability. The ability to describe how conflict impacts health outcomes such as health-related quality of life (HRQoL) is an important step in identifying the best measures to promote stability within the population by empowering civilians and addressing their basic needs. Indeed, it has been noted that societies that feel marginalized and oppressed are less likely to be engaged with their communities and to participate in governance—two factors that can make it difficult for civilian populations to sustain a positive influence on policy making (Safadi & Lombe, 2012).

Due to the unstable circumstances, it has been difficult for policymakers to adequately develop and implement effective policy measures that would increase health outcomes, particularly since population mobility is not controlled by the PNA and can change with little to no warning. With over 75% of the budget of the PNA coming from foreign aid, social initiatives that strengthen the socioeconomic system and well-being of citizens are impossible without

state-building efforts from donors. However, after the second Intifada in 2002, some donors, including the United States, decreased overall aid contributions by up to 33%, doubling the poverty level in the country. The inability of the PNA to either adequately fund or consolidate the healthcare sector has led to decreased outcomes in all segments, hitting the war-afflicted population especially hard. Studies have shown that the traumatic experiences of war and conflict often lead to psychological distress, and that mental health facilities are woefully lacking in Palestine, as is the case in many post-conflict countries due to a lack of emphasis on mental health as a public health problem (Qouta, Punamaki, & Sarraj, 2008).

Rates of non-communicable diseases, such as type 2 diabetes and cardiovascular disease, have also been shown to be higher in the oPt than in surrounding countries. It is speculated that aside from standard causes such as high rates of smoking (which is a common practice in the Middle East) and obesity, particularly in the rural populations, there are context-specific factors that lead to poorer health outcomes. Lack of ability to detect ailment risk factors early, and an inability of most patients to be able to pay for the long treatments often necessary to tackle these issues, are often coupled with poor lifestyle choices. However, even these choices can be partially attributed to the conflict, since many citizens are limited in their movement, may not be able to find healthy food options easily, and may be experiencing inflated food costs (Mousa, Yousef, Riccardo, Zeidan, & Sabatinelli, 2010).

Health-Related Quality of Life (HRQoL) in the oPt

With such a dire situation in the oPt, it seems likely that HRQoL has suffered as a result. A number of studies, which will be addressed in greater detail later in this paper, have attempted to capture HRQoL measures in various contexts of the Palestinian experience. There have been

studies that have looked at this issue in those with physiological ailments such as hypertension and diabetes (Baune & Aljeesh, 2006; Eljedi, Mikolajczyk, Kraemer, & Laaser, 2006). Others have looked at HRQoL in healthy Palestinian adults in both the West Bank and Gaza Strip or in just the Gaza Strip (Abu-Rmeileh et al., 2011; Mataria et al., 2009). A number of studies have focused on children from around the territories, noting that the impact of the war on these young lives is an important way to understand the manifestations of the conflict in the future (Giacaman, Shannon, Saab, Arya, & Boyce, 2006; Massad, Nieto, Palta, Smith, Clark & Thabet, 2011; Quota, Punamaki, Montgomery, & El Sarraj, 2007). Altogether, the many studies in this body of research, while varied in their subjects, all point to one similar conclusion: the current situation in the oPt, with the combination of the side effects of the occupation, restrictions, and the violence itself, can be wholly considered as the primary factor negatively influencing HRQoL.

Jordanian Situation

As an indication of the impact of conflict on Palestine, a sample from Jordan—a neighboring country that is similar culturally, ethnically, and religiously to the West Bank—will be considered. The culture and history of Jordan has always been intertwined with that of Palestine, due to both geography (the West Bank is named after its location on the Jordan River; Jordan is essentially the “east bank”) and a shared cultural history. The ruling monarchy in Jordan promotes to the area peoples a concept of “Arabism” over a nationalist Jordanian identity, since the Hashemites (the clan of the Jordanian monarchy) were relative newcomers to Jordan themselves (Frisch, 2002). It is therefore not a sense of a “Jordanian identity” that is distinct from a Palestinian identity. Additionally, after Israel’s creation in 1948, Jordan absorbed many of

the Palestinian refugees, and many Palestinians continue to live in Jordan. At the same time, many Jordanians have family or origins in Palestine, and many individuals feel a “joint Jordanian-Palestinian identity” (Nevo, 2003). Although the relationship between the Palestinians and their various governing bodies (the Palestinian Liberation Organization in the 1990s and the PNA’s current political party, Fatah) and Jordan has been complex and decisions have often been made in self-interest, the bond between the two nations and its peoples is undeniable (Frisch, 2003).

This history lends credence to the argument that Jordanians and Palestinians are similar culturally and ethnically. Additionally, the people of the West Bank and Jordan are very demographically similar. According to the Central Intelligence Agency’s (CIA) latest World Factbook, the majority of both Jordan and the West Bank are primarily Arab (98% in Jordan and 83% in the West Bank, with the remaining 17% being predominantly Jews living in West Bank settlements). Arabic is the primary language in both countries, and Sunni Islam the predominant religion. The age structure in both nations is nearly identical, with 21.8% and 35.9% of West Bank Palestinians and 19.9% and 36.2% of Jordanians aged 15-24 and 25-54, respectively (the primary age groups targeted in this study). The median age in Jordan is 22.6 years, close to the 21.8-year median in the West Bank. The urban/rural ratio is also similar, as 82.7% of Jordanians and 74.3% of West Bank residents live in urban settings. With regard to education, 95.3% of Palestinians and 95.9% of Jordanians are deemed literate, which are high figures for the region and for developing countries in general (CIA World Factbook, 2011). In the West Bank, 40% of 18-24-year-olds were enrolled in higher education in 2007, and 22% of 18-25-year-olds in Jordan were enrolled in universities in 2006. While more recent statistics could not be found or verified, the World Bank emphasized that these were some of the highest levels of tertiary school

enrollment throughout the Arab world (World Bank, 2007; World Bank, 2009). Thus, although the results from this study are not generalizable to the West Bank or Jordanian populations as a whole, they are representative of a sizable and important segment within these communities.

Previous research has shown that social support is an important factor in reducing perceived stress in both Jordanian and Palestinian university students (Hamdan-Mansour & Dawani, 2008). However, not surprisingly, Jordan performs slightly better with regard to economic indicators than does the West Bank. Jordan's GDP is nearly \$34 billion, with a population just under 7 million; the West Bank's population is 4.2 million, but their GDP is significantly less than Jordan's at \$11 billion. About a quarter of the West Bank is considered impoverished, as opposed to 14% in Jordan (The World Bank, 2014). As would be expected, Jordan's ability to operate without the economic constraints of a military occupation, as well as its close ties with the West, has led to better and more stable economic indicators.

Familial relationships are very similar in Palestinian and Jordanian cultures, with the family playing the central role in an individual's life. College-age children live at home until they are married, and even then may live in the same city or even in the same home as their parents (typically on the husband's side). Education is extremely important in both cultures, and virtually all families who are able to send their children to college or vocational schools do so. Although gender disparities in these countries are not as pronounced as in some other Middle Eastern countries, cultural and religious norms tend to position males as the more independent and dominant of the two.

Politically and economically, the Kingdom of Jordan is considered to be one of the most stable countries in the region (Glain, 2003). Although Jordan is a state that was only politically defined in 1921, after World War I it emerged relatively unscathed from the divisiveness of the

Middle Eastern conflicts that have stemmed from creations of artificial borders (Nevo 2003). Today, the International Monetary Fund (IMF) and the World Bank both point to Jordan as an example of economic reform, and even if these statements may be slightly inflated by a need to keep Jordan stable, the country has nonetheless served as a model of Middle Eastern liberalization, which is in stark contrast to the situation in the oPt (Harrigan, El Said, & Wang, 2006). The stability of Jordan, particularly in the turmoil of the current Middle East, is very important to the West and to the United States specifically. The current king, Abdullah II, is very close with Western leaders and even leaders within the Israeli government, with whom he meets regularly. Indeed, Jordan signed a peace treaty with Israel in 1994, which not only smoothed relations between the nations, but also addressed other forms of cooperation. Jordan's historic relationship with Israel, particularly within the Hashemite monarchy, has even led to periods of tense relations between Jordan and other Arab nations (Haddad & Hardy, 2003).

Jordan is similar to many other developing nations in that many individuals do not have health insurance and thus do not seek out medical care and can often not afford necessary treatments (Shoqirat & Cameron, 2012). Although Jordanians may not experience chronic conflict like their Palestinian neighbors, they still endure many of the struggles seen in developing nations, such as a strong relationship between quality of life and the education or employment of the family patriarch, high levels of food insecurity combined with high levels of obesity, relatively high incidence of non-communicable diseases, and gaps in healthcare leading to unnecessary suffering and deficient levels of care (Al-Akour, Khader, Khassawneh, & Bawadi, 2011; Al Qadire, Tubaishat, & Aljezawi, 2013; Bawadi, Tayyem, Dwairy & Al-Akour, 2012; Khalaf et al., 2009; Shishani, Dajani & Khader, 2013). Previous studies of perceived stress among Jordanian college students showed responses similar to Palestinians regarding

demographic characteristics and relationships to families (Hamdan-Mansour & Dawani, 2008). Also congruent with their Palestinian counterparts, Jordanian college students with poor life satisfaction, depression, and high perceived stress were observed to be more hostile, which is another psychosocial parallel that indicates that external circumstances have a significant effect on mental well-being and behavior (Hamdan-Mansour, 2010). Thus, it is reasonable to expect that the HRQoL, stress, and insecurity scores of Jordanians will be more positive than those of Palestinians due to their lack of conflict and conflict-related obstacles.

The Question of Citizenship

One of the most significant indicators for the purposes of this study is that of citizenship, especially with regard to the West Bank sample, since economic and social resources differ depending upon that citizenship. The West Bank is under the control of Israel, and Palestinians living and/or studying in the West Bank may or may not have Israeli citizenship, depending on their familial background. After the establishment of the state of Israel in 1948, nearly 1 million Palestinians fled or were forced out of their homes. The remaining Arab population settled within the state of Israel and maintains Israeli citizenship. Today, about 20% of Israel's population (about 1.5 million people) is Arab—a significant minority that is concentrated in several pockets of Arab villages in the north, such as Nazareth, and numerous other localities, including mixed cities like Haifa and Jaffa (ICBS, 2010). Most of the quarter of a million Palestinians in East Jerusalem (generally considered to be part of the West Bank, although this is contested) have refused Israeli citizenship, but still claim Israeli residency (BBC News, 2009). This impacts the residents of the West Bank greatly; often within a single family there can be a mix of citizenship, and thus access to resources, which impacts an individual's personal life

experience on the basis of a single indicator. Further, the complicated history explains why so many Arabs who would self-identify as Palestinian actually possess Israeli citizenship, and commonly refer to themselves as Palestinian citizens of Israel.

Palestinian citizens of Israel do not have the same rights and resources as Jewish Israelis, but Palestinians without Israeli citizenship have even fewer rights and resources than their Israeli brethren. The distinction between Palestinian Arabs with or without Israeli citizenship is stark, particularly when considering access to resources, from the tangible (healthcare, education, barriers to travel) to the intangible (social support, sense of nationalism, available opportunities). Palestinian citizens of Israel have access to the same social safety net as Israeli Jews, can travel relatively freely for personal or professional needs, and are, in general, part of a more stable and secure societal structure. On the contrary, Palestinians who identify as citizens of the State of Palestine are restricted in their travel, must deal with the bureaucratic trappings and shifting rules of a quasi-state, and are constantly experiencing the harsh consequences and threats of living in occupied lands. Palestinian citizens of Israel experience a higher degree of social mobility, more support for entrepreneurship, and an overall more progressive and individualistic society (Sharabi, 2010). These characteristics will undoubtedly impact their mental health outcomes as compared to the other two groups examined in this study. This illustrates the sensitivity and complexity with which citizenship is determined in this context; thus, capturing this data point is vital.

There are several reasons that Palestinian citizens of Israel might choose to study at a university in the West Bank. There is no state-funded Arabic language university in Israel, and Arabs are not eligible for many of the educational subsidies available to Israelis (as they are typically dependent on military service). Thus, college in Israel can be prohibitively expensive

for Arab students, and unless they speak Hebrew fluently, they may have difficulty adjusting to Hebrew-only universities. Overall cost of living is also much cheaper in the West Bank, making it easier for students to afford not just the cost of attending a university, but also of regular living expenses. Further, anecdotal evidence suggests that some Palestinian citizens of Israel simply don't feel comfortable in Israeli universities; they may be excluded from social events, and have difficulty gathering for fear of protests or other politically motivated incidents. Lastly, admissions requirements are higher at most Israeli universities, making it difficult for Palestinian citizens of Israel who may have attended subpar primary schools to compete with Israeli students. Since Palestinian universities are similarly accredited, they offer an opportunity for students that are Palestinian citizens of Israel to obtain a college degree at a lower cost and in a more culturally similar atmosphere. Upon graduation, they still have the option to return to Israel, where employment opportunities are more plentiful, or to leave the region altogether, although some do choose to stay and work in the West Bank (but retain their Israeli citizenship and most of its benefits).

Need for an Empirical Study

In summary, the copious challenges faced by the Palestinian healthcare system and overall social safety net, such as the separation between the West Bank and Gaza Strip, the inconsistency of donor support, the inhospitable atmosphere for economic growth, the unstable political situation, and the physical and mental stressors of the conflict, make it nearly impossible for citizens and their quality of life to truly flourish (Hamden & Defever, 2002). Neighboring countries, such as Jordan, that have more stable socioeconomic and healthcare systems, do not face these specific challenges. While there is some evidence that there are differences in the

quality of life between Palestine and Jordan, there is little empirical evidence that conflict is the source of the difference. It is imperative that an empirical investigation of the impacts of the conflict in Palestine be conducted. This study attempts such an investigation by assessing the HRQoL and other indicators in Palestine for both Israeli and Palestinian citizens, using Jordan as a comparison group.

CHAPTER TWO: LITERATURE REVIEW

Conflict and Health

Unfortunately, forms of war and political unrest are not uncommon occurrences in modern global society. Much of the focus in the existing literature about conflict and health is divided among health needs, the functioning of health systems, and health outcomes. Thus, an effort to understand the potential compounded impacts of such incidents on large population groups has influenced the undertaking of a number of studies regarding the health status of individuals in conflict zones (De Jong et al., 2001). These three topic areas provide a useful framework with which to describe the body of knowledge on this topic. Studies of health needs have found that people affected by conflict have different health needs than those living in countries considered to be low-income or developing. Such health needs included dispersed populations that may be difficult to access, chronic diseases that are not addressed consistently, lack of affordable primary care in urban areas, and difficulty in data collection and assessment measures (Spiegel, Checchi, Colombo, & Paik, 2010). Aside from the obvious mortality consequences of war, the indirect impacts are often devastating to societies for much longer and in ways that can be permanently disruptive. Healthcare workers flee or are overworked and are unavailable for needy patients. Inability to properly maintain agriculture can reduce access to food. Citizens may be unable to access clean water. Due to proximity and weakened immune systems, communicable diseases are more likely to spread among war-affected populaces (Iqbal, 2006). Combined, these many factors can cause any already devastating humanitarian crisis to become unsustainable, and the impact on health is one of the first conspicuous negative outcomes.

Studies have also found that conflict affects the functioning of healthcare systems. Enormous pressure is placed on every aspect of not just these systems, but on seemingly every supportive social institution. Heavy workload due to staffing shortages coupled with inconsistent access to resources makes it difficult to provide optimal care, particularly in overworked fields such as maternal care and midwifery (Hassan-Bitar & Narrainen, 2011; Matthews, 2011). While the pressure on the healthcare system is certainly not the sole contributor to poor health and HRQoL indicators, it does make it difficult to triage the needs of the existing population, let alone to focus on efforts that can mitigate some of the negative effects of the conflict in the future. The type of lifestyle associated with poverty, which is widespread in the oPt, certainly does not help quell existing health disparities. Along with lack of healthcare expenditure, the healthcare system is historically fragmented, as before the PNA was established and took over the healthcare system, the focus of the Israeli administration was on controlling infectious disease via vaccination initiatives rather than on chronic disease. Today, the dependence on foreign aid for the healthcare budget also motivates the PNA to spend donor funds on short-term initiatives with more immediate results rather than on long-term initiatives (Husseini et al., 2009).

The exploration of how conflict impacts health outcomes makes evident that the casualties of war extend far past the battlefield. Those actively affected by conflict “may return from war with a battlefield mindset,” causing an increase in violent and aggressive behaviors (Sidel & Levy, 2008). Exposure to political violence also significantly increases risk for intimate-partner violence, as found in a recent study of thousands of Palestinian households (Clark et al., 2010). Studies have found that a father’s level of war exposure is associated with an increase in the potential for mistreatment of children and subsequent depression, post-traumatic

stress disorder (PTSD), or anxiety in the child (Palosaari, Punamaki, Quota, & Diab, 2013). This is particularly important when understanding that in the Palestinian context, violence and disruption are a part of everyday life, with men being the primary direct objects. This perpetuates a cycle of violence, from political to personal (Giacaman, Rabaia, & Nguyen-Gillham, 2010). As supported by social ecology theory, violence at higher levels of an individual's ecology (such as political violence) will produce more violence in lower levels, such as youth violence and domestic violence, and Palestinian children that were exposed to political violence do indeed show more signs of aggression (Boxer et al., 2013). Palestinian children who grow up with cohesive, expressive, and stable families perform better in school and display more positive mental health outcomes (Khamis, 2005; Khamis, 2012). Thus, in an environment where the presence of the violence is seemingly perpetual, it becomes vital to understand the needs and experiences of local populations in order to intervene in the cycle of violence.

Aside from non-fatal, war-related injuries such as tear gas inhalation and being hit by rubber bullets, psychological trauma is one of the most prolific yet hidden health impacts of the Israeli-Palestinian conflict (Halileh, Daoud, Khatib, & Mikki-Samarah, 2002). Perhaps not surprisingly, mental health outcomes have been among those most studied for the purpose of assessing the impact of long-term conflict. Furthermore, unlike many physical wounds, the side effects from mental injuries can last for a lifetime and permanently alter the perspectives of a generation (Sabes-Figuera et al., 2012). Studies have found high levels of psychological disorders in the oPt population, including PTSD, anxiety, and depression, even among children and adolescents (Baker & Shalhoub-Kevorkian, 1999; Espie et al., 2009; Khamis, 2005). Mediating factors in the development of mental stressors include level of exposure to violence, economic status, and level of parental education, but even in the most supportive circumstances,

Palestinian youth experience significantly higher levels of mental health issues and aggression, placing stress on families and civic society (Al-Krenawi & Graham, 2012). Differences also exist in how genders experience political violence. While both Palestinian men and women report high rates of PTSD and depression, men, who are more likely to be directly involved in clashes or impacted by unemployment, reported significantly higher rates of PTSD than women. For men, it is the actual exposure to political violence that leads to decreased mental health outcomes, but for women, it is the sociopolitical stressors that occur as a consequence of the conflict that are the most impactful. Loss of inter- and intra-personal resources contributes to poorer mental health outcomes in both genders (Canetti et al., 2010). Unfortunately, a severely taxed mental health system, along with the consistent presence of triggering events, makes it difficult for Palestinians of all demographics to be able to cope with and recover from psychological trauma successfully. This makes them even more vulnerable with regard to future events, and thus perpetuates a disastrous downward spiral (Llosa, Casas, Thomas, Mairal, Grais, & Moro, 2012).

This unfortunate outcome of conflict is not exclusive to the Palestinian experience. For example, civilian survivors of the Kosovo War of 1998-1999 were found to have a high incidence of PTSD, along with social anxiety disorder and major depressive disorder. They were also found to have a “compromised” quality of life (Kashdan, Morina, & Priebe, 2009). Children in Burundi, which has experienced periods of ethnically motivated political unrest since 1962, have experienced PTSD and other psychological impairments, particularly those children who were displaced, had potentially life threatening experiences, or lived in households with large numbers of people—all characteristics that are seen in Palestinian communities (Hall, Tol, Jordans, Bass, & de Jong, 2014).

In general, anxiety disorders of all types have been associated with poor functioning in both mental and physical indicators of HRQoL (Beard, Weisberg, & Keller, 2010). A range of demographically defined subgroups has also been the focus of many studies regarding health or well-being measures. As a whole, children, with their vulnerable roles in society, tend to be the focus of many studies on this topic. Their impressionable minds, scarred by conflict and scenes of misery, will soon be those that lead the country and create its policies. Conversely, they are often the most likely group to show signs of resilience and demonstrate coping mechanisms in the face of adversity such as armed conflict (Tol, Song, & Jordans, 2013). Understanding the impact of conflict on them (and on youth overall) is important in gauging the potential impact of their rising generation on the future functioning of the society. Since the situation in the oPt seems to be consistently static, the conflict is a decidedly chronic influence on their lives, and cannot simply be seen as a single bump on an otherwise calm road. Even Palestinian children who do not experience conflict-related traumatic events firsthand suffer the impacts of collective violence, such as seeing other people get injured or arrested, having to go through checkpoints, and witnessing consistent clashes (Giacaman, Shannon, Saab, Arya, & Boyce, 2006).

A review on the topic found that overall, children in the oPt, particularly in zones actively stricken by the conflict (active fighting, demolition of houses, curfews, refugee experience, etc.), show significantly lower rates of mental well-being, with some even suffering from severe PTSD. Not surprisingly, Palestinian children living in Israel under more economically and physically secure conditions demonstrate much better mental health outcomes, showing that circumstance is the biggest indicator of an impact (Sagi-Schwartz, 2008). Palestinian adolescents who experienced stressful or traumatic life events expressed PTSD symptoms along with decreased cognitive capacity, neuroticism, and poor quality of life (Quota, Punamaki,

Montgomery, & El Sarraj, 2007). Reported symptoms include fear of leaving the home, fear of soldiers, and general anxiety and cognitive distress (Thabet, Abed, & Vostanis, 2002). Aside from the mental and physical impacts of such ailments, Palestinian youth and adolescents may turn to political or religious ideology as a form of mental “protection,” further perpetuating the conflict in the next generation (Khamis, 2012). Indeed, a study of Palestinian suicide bombers found that they generally exhibited the same characteristics, including having experienced a troubled childhood, oppressive social environments, low self-esteem, a personal crisis, a desire for revenge, and an attraction to the potential for fame and glory in a society where unemployment is high and opportunity is scarce (Lankford & Hakim, 2011). This indicates that the mental health functioning of individuals in war-afflicted societies is a significant indicator of their future trajectory as citizens and their potential for extremism or even violence.

The copious barriers to healthcare in both the West Bank and Gaza, such as distance of healthcare providers from the home and availability of needed drugs, are speculated to be among the highest causes of the increasing rates of cardiovascular diseases in general and diabetes mellitus in particular (Shoaibi, Khatib, Khatib, Husseini, Zaman, & Phillimore, 2011).

Palestinian adolescents aged 13-17 exhibit poor lifestyle behaviors that have led to high rates of overweight and obesity in that demographic (Ghrayeb, Rusli, Rifai, & Ismail, 2014). Palestinian adults, particularly in Gaza, have been shown to have high rates of metabolic syndrome, especially with increased age, as well as a higher prevalence of obesity than those in most other countries, especially among women. Scarcity of resources, particularly lack of education about obesity-related risk factors, is cited as one of the primary reasons for this disparity (Sirdah, Al Laham, & Abu Ghali, 2011; Stene et al., 2001). This lack of resources can be directly linked to the presence of the conflict, which disrupts lives, creates difficulties in maintaining an income

and a stable domicile, and allows little room for development and growth. The physiological impacts of long-term stress, brought on by consistent war-like conditions, have also been shown to increase cardiovascular disease-related mortality (Abu-Rmeileh, Husseini, Abu Arqoub, Hamad, & Giacaman, 2008).

HRQoL and the SF-36

There are multiple measures that assess indicators of health, quality of life, and well-being, as they are very broad concepts and can be difficult to quantify. Since the WHO was established in 1948, the definition of health has remained the same: “health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2003). This definition incorporates not just the clinical state of health that is typically considered, but also a deeper sense of well-being that can be difficult to define. One such way in which researchers and epidemiologists have sought to both define and measure this concept is through a concept called “quality of life.” This term is multidimensional and includes aspects of life such as culture, housing, and spirituality. Because of the all-encompassing nature of war, it has been used as a backdrop for a number of studies measuring this construct. Much of the literature about the impacts of conflict uses the slightly more narrowed indicator of “health-related quality of life” (HRQoL). This idea supports the concept of health as defined by the WHO, the leading institute of global health initiatives and research.

Unlike the broader concept of general quality of life, HRQoL comprises aspects of both physical and mental well-being that impact health (Centers for Disease Control and Prevention, 2011). There are several instruments that measure HRQoL. One of the most widely used in a multitude of contexts is the Medical Outcomes Study Short Form-36 (MOS SF-36, or more

commonly SF-36). This instrument was developed by the RAND Corporation as part of a study that sought to explain variations in health outcomes (Hays, 1994). The SF-36's strengths lie in its ability to target a general measure of health functioning as opposed to a specific condition or population (Ware & Gandek, 1998). While other measures exist, such as the WHOQoL developed by the World Health Organization, the SF-36 has been shown to more accurately measure HRQoL as opposed to simply quality of life (Huang, Wu, & Frangakis, 2006). While the SF-36 has been found to be a reliable and valid measure of HRQoL constructs, it is not meant to report actual health status (Reed & Moore, 2000).

In an effort to better understand differences in HRQoL measures, researchers often incorporate demographic or other similarly measurable questions in order to better quantify the results of the SF-36 among different types of respondents with different characteristics. Of these demographic indicators, age has not been found to be a primary influence on SF-36 score, although gender (men tend to score slightly higher than women), level of education (those with a college education score higher than those with an elementary education), and health status (those experiencing heart disease, diabetes, or respiratory problems score lower) have been shown to make an impact (Shmueli, 1998). Because of its global utility, the SF-36 has been translated and validated in many languages, including Arabic, which supports its use for the purposes of this study (Guermazi et al., 2012).

The SF-36 has been found to be a stable measure of HRQoL in healthy populations over time (Obidoa, Reisine, & Cherniack, 2010). The SF-36 has been used internationally and found to be an applicable HRQoL measure in countries such as China and much of Europe, including France, Germany, and the United Kingdom (Wang et al., 2008; Ware et al., 1998). Along with healthy populations, this instrument has been used widely with afflicted populations, such as

breast cancer survivors, those with chronic pain, patients with drug addiction, individuals with functional limitations such as blindness or deafness, and obese patients (Horner-Johnson et al., 2010; Torrance et al., 2009; Wan et al., 2001; Wee, Davis, & Hamel, 2008; Yost, Haan, Levine, & Gold, 2005).

HRQoL, as a subset of the greater field of quality of life research, is one measure that researchers have used, particularly in the last few decades, to assess just one of the ways in which long-term armed conflict impacts individuals. A variety of measures, including the SF-36, have been used around the world to look at HRQoL in war-affected societies. The proposed study adds to the existing literature by comparing a war-torn population to one that is similar ethnically, culturally, and religiously, but is not suffering from the conflict-ridden environment. Additionally, this research will assess level of stress and insecurity and their relationship to existence of conflict and HRQoL. The expected results will allow the researcher to compare not only the HRQoL scores between these two populations, but also within the war-affected population to evaluate differences within the sample, such as between different citizenships, age groups, socioeconomic statuses, and household sizes (variables that have been identified as important factors in previous studies of the region). Overall HRQoL scores, as well as the scores of each individual construct measured by the SF-36, will also provide valuable, detailed information for researchers and policymakers.

HRQoL in the oPt and Other Conflict Areas

Both the psychological impacts of war and the resulting damage to infrastructure and social conditions have been found to reduce quality of life in multiple contexts. For the reasons mentioned in the introduction, the Palestinian Territories have been the focus of several quality

of life studies, particularly in the past decade. These studies have been diverse in their target population selection, their use of measurement instrument, and their context. Appropriately, several of the studies that evaluate QoL measures on conflict-ridden areas tend to take place immediately after a specific period of escalated violence and conflict. One of the first studies found in the literature that assessed the topic of QoL in adults within the oPt gathered data in 2001 and focused on hypertensive patients within Gaza. Using the WHOQoL, the study found that while age had no impact on QoL, gender, education, and psychological stress were found to be correlated with WHOQoL score. Males, highly educated people, and those with lower levels of psychological stress reported overall lower scores. This was particularly true among those with hypertension, but not hypertension and stroke (Baune & Aljeesh, 2006).

The WHOQoL, one of the most commonly used QoL measures, was distributed in the oPt again in 2003-2004 in the Gaza Strip, this time between diabetic and non-diabetic refugees. Both groups scored low in the environmental domain, although the diabetic participants also reported lower physical health and psychological domain scores (Eljedi, Mikolajczyk, Kraemer, & Laaser, 2006). The WHOQoL instrument was used yet again in the West Bank and Gaza in 2004. Although the sample differed slightly from the first WHOQoL study, the responses were very similar. Most people credited lack of stable socioeconomic conditions and access to the basics of living, such as work, food, and security, as the largest factors impacting their QoL. The results of the Israeli occupation, including closures, checkpoints, and the separation wall, were unanimously considered to be the most negative influences on life quality. Even other factors that were seemingly unrelated, such as overcrowding and corruption within the Palestinian Authority, can be considered outcomes of the long-term war and occupation (Giacaman et al., 2007).

A study from 2005 also used the WHOQoL to determine HRQoL scores, and the participants in this survey (adults from the West Bank and Gaza Strip) ranked the “social” and “environmental” domains as the factors that most directly impacted QoL (other domains include physical and psychological). Their stated reason for undertaking a QoL study in the oPt stemmed from the copious amounts of literature assessing quality of life in survivors of chronic illness, such as cancer, but the lack of literature dealing with survivors of another type—chronic exposure to war, conflict, and violence. Not surprisingly, a low distress score (based on anxiety and daily interaction with the outcomes of the conflict, such as checkpoints) correlated with a higher overall QoL score (Mataria et al., 2009). Shortly after the 2008-2009 Gazan conflict, the WHOQoL was distributed once again to Gazan residents. A shocking number of respondents—87.6%—reported that suffering is a daily part of their lives. Levels of insecurity and distress were also very high within this population. This study found that the occupation and consistent war or threat of war were the highest causes of suffering for all respondents (Abu-Rmeileh et al., 2011). A 2014 study of Palestinian adults found an inverse relationship between insecurity and quality of life, as insecurity “strongly predicts both physical and emotional suffering” (McNeely, 2014).

HRQoL has also been used to assess the impact of conflict on children. In 2007, a specialized HRQoL measure called PedsQL 4.0 was used with a group of mothers of Gazan children, along with the collection of additional demographic questions measuring physical, emotional, social, and school functioning, along with exposure to violence. The results of this study were disheartening, but not surprising. The mothers reported that hearing the constant sounds of fighter jets, seeing mutilated bodies on television, and hearing shelling in their neighborhoods were their children’s highest exposures to the war. Further, due to the

transportation and import restrictions, most families did not have money to pay their bills and were unable to eat meat, fish, fruits, or vegetables most days of the week. Additionally, the mothers had high rates of poor mental health themselves, which likely negatively impacted their children. Those who lived in direct military confrontation zones reported lower quality of life scores, along with overall health, emotional well-being, and school functioning. The overall HRQoL scores were comparable to those of American children with severe chronic illnesses (since there are no comparable studies in other Arab children) (Massad, Nieto, Palta, Smith, Clark & Thabet, 2011).

Although the Palestinian context is unique in several ways, it is unfortunately not the only region in the world afflicted by devastating war. In the early 1990s, Croatia was involved in a war that was costly in terms of both money (about \$37.4 billion in estimated damages) and loss of life (20,000 killed or missing, with another 30,000 disabled). In a situation similar to that of the Palestinians, the toll of the war was not just in its direct impacts, but also in other forms, such as occupation by another entity and a rush of refugees both in and out of the country. Shortly after the war, researchers became interested in assessing the impact of such a conflict on HRQoL in the post-war context in Croatia. In one study, a survey was administered using the SF-36, which was used to assess HRQoL measures. In general, scores were lower in most constructs for war-affected counties as opposed to non-affected counties. It is important to note that the conflicts in Croatia and Palestine have been quite different. The war in Croatia, although devastating and violent, lasted about five years. Thus, the occupation was not long-term, as is the case in the Palestinian situation (Babic-Banaszak et al., 2002).

Theoretical Framework

As a concept, HRQoL encompasses aspects of both physical and mental functioning. Overall levels of well-being and quality of life are greatly influenced by external stressors, particularly socioeconomic and politically-based ones, when considering war contexts such as the oPt (Abu-Rmeileh et al., 2011; Barber, McNeely, & Spellings, 2012). Indeed, poor well-being in the oPt has been linked to lack of societal engagement, marital distress, poor parenting, and unemployment (Hobfoll et al., 2012). Research focusing on the consequences of stress defines social stress as, “a state of arousal resulting either from the presence of socio-environmental demands that tax the ordinary adaptive capacity of the individual or from the absence of the means to attain sought-after ends” (Aneshensel, 1992). Thus, stress is not just the presence of an external stressor, but it is additionally the response of the individual to reconcile their needs, values, and resources with their conditions. This differentiation becomes important when considering how the types of social stress that are caused by long-term conflict may impact the HRQoL, and indeed, quality of life in general, of an individual. The stressors of war in particular (such as physical or mental injury), since they are often serious, chronic, and reoccurring, can be among the most debilitating of all external stressors, affecting other, more common stressors, such as family disruption and unemployment (Benson et al., 2011).

The impact of stress on traditional patient-related outcomes, such as disease pathology, symptoms, and functional limitations, has been well established in the literature. Stress and lack of social support has been shown to negatively impact HRQoL in several studies (Fortin et al., 2006; Garcia, Banegas, Perez-Regadera, Cabrera, & Rodriguez-Artalejo, 2005). Social stress theory links the medical model with the quality of life model, showing how physical and mental well-being can be impacted by the desire for individuals to achieve their needs within their

contextual constraints (Ormel, Lindenberg, Steverink, & Vonkorff, 1997). Over the past few decades, this field of research has increasingly looked to the consequences of stress-related trauma, specifically as a result of armed conflict and its subsequent effects (e.g., poverty, displacement, ostracism, and loss of social support), to understand how stress changes outcomes such as HRQoL (Miller & Rasmussen, 2010).

One of the most important aspects of social stress theory is the relationship of everyday functioning and social networks. Research has shown that those who feel socially isolated in the presence of stressors are much more likely to show decreases in mental health, vitality, and limitation in functioning (Achat, Kawachi, Berkey, Coakley, & Colditz, 1998). Lack of social networks and support, which is common in turbulent or fragile situations, can exacerbate the already negative impacts of stressful situations (Robinaugh et al., 2011). Safety and security, dignity and integrity, and a sense of cohesive community, factors that are also negatively influenced by war and conflict, are concepts that have been shown to decrease HRQoL when they are not present or consistent (Kagawa-Singer, Padilla, & Ashing-Giwa, 2010). Even for children undergoing social disruption and stress, those with greater social capital and social support experience a subsequent “protective effect” on depressive symptoms (Hall, Tol, Jordans, Bass, & de Jong, 2014).

Perhaps one of the most common manifestations of the impact of stress on HRQoL is PTSD. In essence, it is understood that typically, an individual can experience a traumatic experience without the burden of long-term psychological and physical ramifications. When the stress overcomes this natural defense mechanism, the resulting pathology is known as PTSD (Bisson, 2009). PTSD and other traumatic stress symptoms have been found to be especially prominent after war exposure, although many of the existing studies investigating this

relationship focus on soldiers and veterans. However, this literature is still vital in reaffirming the link between armed conflict and stress for all those impacted (Ursano et al., 2010). Considering the depth of literature that confirms that anxiety disorders, particularly PTSD, significantly impact many QoL and HRQoL domain measures, these studies become acutely important in validating the need for this type of research (Olatunji, Cisler, & Tolin, 2007).

To an extent, studies evaluating the occurrence of PTSD and other psychiatric disorders in the oPt do exist. It has been found that among civilian populations, particularly after an especially violent period, PTSD in Palestinians is very prevalent among both those that were actually injured and impacted by the violence and those who simply lived through it (Elbedour, Onwuegbuzie, Ghannam, Whitcome, & Abu Hein, 2007; Khamis, 2008). As previously mentioned, specific demographic subgroups, such as children, have been the focus of much of the research in this field. PTSD is especially apparent in children who have witnessed trauma, particularly those who feel anxiety even within the home (Khamis, 2005). The impact of debilitating mental stress disorders such as PTSD on the physical health of Palestinians who have directly experienced conflict-related trauma cannot be understated (Thabet, Abu Tawahina, El Sarraj, & Vostanis, 2008). Unfortunately, this issue is compounded by the fact that unlike the Israelis, Palestinians do not have a cohesive system for aiding victims of political violence, often leaving them without money, a job, or even a home, and suffering from mental anguish without the option of counseling or other support (Abbott, 2010). Further, evidence suggests that anxiety and aggression can be intergenerational, as Palestinian fathers who had experienced war trauma were more likely to mistreat their children, thus leading to insecurity, depression, and even PTSD in the child (Palosaari, Punamaki, Quota, & Diab, 2013).

Purpose of this Study

This paper will assess the relationship between long-term armed conflict, HRQoL, stress, and insecurity in Palestinians. As a control group, a similar sample will be identified from the neighboring country of Jordan, which shares religious, social, and cultural norms, but has not been subject to armed conflict. Demographic characteristics such as citizenship, age, socioeconomic status, and household size will also be used to assess how factors aside from conflict might impact these health outcomes. The sampling process will ensure the selection of a cross-section of individuals so that the study can control for singular characteristics. The measure of HRQoL will be the previously validated Arabic version of the SF-36 tool, along with questions capturing demographic features.

The proposed study will not just compare Palestinians to each other (based on demographics such as age, gender, and citizenship), as is the standard in many of the QoL studies described. While there is value in assessing differences between and among Palestinians, there is much knowledge to be gained by comparing a sample of Palestinians to a sample that is similar ethnically and culturally, but has not been subject to blockades, occupation, and violence for decades. Thus, this study will contribute to the existing body of literature about the impact of conflict on HRQoL by collecting data from the studied population as well as a control group and will be the first to do so using the conflict in Palestine. Furthermore, this study will also collect the perceived stress score and insecurity score from each participant, providing other dimensions for analysis. By incorporating demographic characteristics into the data collection, this study will allow the researcher to control for individual characteristics and assess what groups of people are most profoundly impacted by the effects of war. Policymakers in this region and in other war-

torn regions can use this type of information to promote targeted humanitarian interventions that can positively impact people's lives, thus minimizing the damage of the surrounding conflict.

CHAPTER THREE: RESEARCH METHODOLOGY

Research Questions

1. Does a population subject to long-term armed conflict have a statistically significantly lower HRQoL (as measured by the SF-36) than a control population that is not exposed to armed conflict?
 - a. Will Palestinian citizens of Israel have statistically significantly higher HRQoL scores than those with Palestinian citizenship?
2. Will level of perceived stress (as measured by the PSS-4) be statistically significantly higher in a population that is exposed to armed conflict?
 - a. Will level of perceived stress be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship?
3. Will level of insecurity (as measured by the insecurity instrument) be statistically significantly higher in a population that is exposed to armed conflict?
 - a. Will level of insecurity be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship?
4. Will individuals with high levels of stress have statistically significantly lower HRQoL scores?
5. Will individuals with high levels of insecurity have statistically significantly lower HRQoL scores?
6. Will individuals with high levels of insecurity also have high levels of stress?

Hypotheses

H_{a1} : A population subject to long-term armed conflict will have a statistically significantly lower HRQoL (as measured by the SF-36) than a control population that is not exposed to armed conflict.

H_{a1a} : Palestinian citizens of Israel will have statistically significantly higher HRQoL scores than those with Palestinian citizenship

H_{01} : A population subject to long-term armed conflict will not have a statistically significantly lower HRQoL (as measured by the SF-36) than a control population that is not exposed to armed conflict.

H_{01a} : Palestinian citizens of Israel will not have statistically significantly higher HRQoL scores than those with Palestinian citizenship.

H_{a2} : Level of perceived stress (as measured by the PSS-4) will be statistically significantly higher in a population that is exposed to armed conflict.

H_{a2a} : Level of perceived stress will be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship.

H_{02} : Level of perceived stress (as measured by the PSS-4) will not be statistically significantly higher in a population that is exposed to armed conflict.

H_{02a} : Level of perceived stress will not be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship.

H_{a3} : Level of insecurity (as measured by the insecurity instrument) will be statistically significantly higher in a population that is exposed to armed conflict.

H_{a3a} : Level of insecurity will be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship.

H₀₃: Level of insecurity (as measured by the insecurity instrument) will not be statistically significantly higher in a population that is exposed to armed conflict.

H_{03a}: Level of insecurity will not be statistically significantly lower in Palestinian citizens of Israel than in those with Palestinian citizenship.

H_{a4}: Individuals with high levels of stress will have statistically significantly lower HRQoL scores.

H₀₄: Individuals with high levels of stress will not have statistically significantly lower HRQoL scores.

H_{a5}: Individuals with high levels of insecurity will have statistically significantly lower HRQoL scores.

H₀₅: Individuals with high levels of insecurity will not have statistically significantly lower HRQoL scores.

H_{a6}: Individuals with high levels of insecurity will also have high levels of stress.

H₀₆: Individuals with high levels of insecurity will not also have high levels of stress.

Population and Sample Selection

The research was conducted in two public universities whose main campuses are in large, urban cities within each country: An-Najah University in Nablus, West Bank, and Yarmouk University in Irbid, Jordan. Both universities offer undergraduate and graduate education in a variety of fields and disciplines and are open to both males and females. An-Najah University, founded in 1977, is one of the largest and most established universities in the West Bank, which until 1967 had no institutes of higher education. In the 2010-2011 academic year, An-Najah had 20,227 total students (An-Najah National University, n.d.). Yarmouk University is similarly one

of the primary public universities in Jordan and was founded around the same time period as An-Najah (in 1976). Their current student enrollment is approximately 33,000 students (University of Virginia, 2015). Ten classrooms from each university, with an average of 40-50 students per classroom, were randomly selected from both undergraduate- and graduate-level courses throughout the colleges and departments of each university. Permissions were secured through several professors at both institutions to distribute surveys, as well as the appropriate deans and other administrators. The researcher also received approval from her campus Institutional Review Board (IRB) to proceed with the Human Subjects study. Only students above the age of 18 were able to participate in the study. Students were given an informed consent letter explaining (in Arabic and English) the nature and purpose of the survey. Per country, the targeted sample ranged between 400-500 students, for a total combined target sample of 800-1000. The universities selected for this study each have a minimum of 20,000 students. Thus, the potential for recruiting the required number of suitable subjects was very high. This will account for a 95% confidence level. The surveys were distributed throughout the summer 2014 semester over a two-week period.

The sample that was utilized (college students) was selected both for the presence of the target age range (young adults), but also for convenience of data collection. Young adults in this context tend to be more politically aware and active. They are typically the age group most frequently involved in protests, clashes, and demonstrations. The researcher has access to universities that allowed for straightforward and predictable approval for data collection. The advantages of using college students include their demographics (mix of males and females, young adults, level of literacy), their willingness to participate in research about this topic, the ability to collect a larger number of respondents in a relatively short period of time, and the

ability to more adequately match samples between countries. Disadvantages include, of course, generalizability of the study and lack of diversity in the sample, such as a lack of lower socioeconomic participants who may not be able to attend college. However, as the literature review demonstrated, much of the research in this field focuses on a particular demographic (such as age), and this study can contribute to the existing literature by adding the perspective of young adults who are the emerging generation of leaders of the country. Furthermore, as college students, these individuals have already surpassed minimal education requirements, and previous studies have found that education level is a variable that greatly impacts HRQoL score. Using a comparatively homogenous sample allows for the presence of conflict, and not a demographic variable, to be the primary difference between the two groups.

Data Collection

Each survey took approximately 10-15 minutes per student to complete. Estimated time in each classroom, including the Explanation of Research, was 30 minutes. Approximately 12 hours was required in each university. The primary researcher was scheduled to travel to the region to collect the data, however the situation in the region deteriorated over the proposed data collection time period, particularly due to the air and ground assault in Gaza, and there were concerns regarding the ability to travel into the West Bank. Thus, IRB approval was given to allow a family member from the West Bank, fluent in both Arabic and English and able to travel between the two countries reliably, to distribute and collect the surveys (a research assistant). A two-week total time period for data collection was adequate.

The participants' primary language is Arabic. The primary survey instrument already features a validated Arabic version, which was utilized in the research. The additional survey

questions, as well as the Explanation of Research form that were distributed, were translated into Arabic, and then translated back into English by an English professor at a local university. The research assistant provided students with an informed consent form in English and Arabic to explain the study. Demographic information was collected for the sole purpose of assisting with data analysis and providing rich data. No specific identifying information was collected.

After receiving permission from the respective universities and the involved professors, the protocol was fairly straightforward. The research assistant entered each classroom at a date and time previously agreed upon by the professor. The researcher distributed the Informed Consent form, including the Explanation of Research, to the students, as well as verbally explained the survey instrument and purpose. To students who met the criteria (those age 18 or older and who provided their consent to participate), the research assistant distributed the paper surveys. The research assistant left the room to allow for anonymous completion of the surveys. The students returned the surveys to a manila envelope left in the room. Upon completion, the research assistant took the completed surveys and continued the process until the target number of surveys was reached. There was no variation in protocol between the two universities. Participants had the option to opt-out of the survey or cease participation at any time, but no students did so (although six surveys were returned blank). Data collection was conducted during one time period, so no need for follow-up was required.

Measurement Instruments

The largest section of the survey instrument is the short-form version (36 questions) of the Medical Outcomes Study scale, developed in 1992 by Ware and Sherbourne (also referred to as the SF-36). Traditionally, it has been used for evaluation within clinical practice, as well as in

general population studies, to assess HRQoL. The SF-36 scale has eight subscales that measure eight constructs: *Physical Functioning*, *Role Limitations due to Physical Health*, *Role Limitations due to Emotional Problems*, *Vitality*, *Emotional Well-being*, *Social Functioning*, *Bodily Pain*, and *General Health* (Ware & Sherbourne, 1992). Each of these constructs is calculated by an average of the responses to one or more of the 36 questions. The responses given by the participants are recoded into appropriate values (as dictated by the SF-36 scoring tool). These recoded values are used to standardize participant responses onto a 1-100 scale for each construct, with higher scores indicating better functioning. The eight constructs can also be compiled to represent two broad constructs: *Physical* (made up of the *Physical Functioning*, *Role Limitations due to Physical Health*, *Bodily Pain*, and *General Health* constructs) and *Mental* (composed of the *Role Limitations due to Emotional Problems*, *Emotional Well-being*, *Social Functioning*, and *Vitality* constructs). Lastly, an *Overall SF-36* score (an average of all of the constructs) was calculated for use in analysis as well.

The SF-36 is an open access survey, with permission openly provided by the RAND Corporation (RAND, 2015). The standard SF-36 has been translated into Arabic and validated for use in Arab-speaking populations (such as the oPt and Jordan), with a Cronbach α -coefficient of 0.94 (Guermazi et al., 2012). The SF-36 has been used in Lebanon, Morocco, Tunisia, Saudi Arabia, and Jordan in a variety of research contexts, and is the most commonly used HRQoL measure used in Arabic-speaking populations (Sayah, Ishaque, Lau, & Johnson, 2013).

Another measurement tool, an abbreviated (four-question) adoption of the Perceived Stress Scale (PSS), will also be used in the survey instrument (Cohen, Kamarck, & Mermelstein, 1983). Cronbach's α of the PSS-4 is typically reported as $>.70$, including an Arabic translation (Loubir, Serhier, Battas, Agoub, & Othmani, 2014). This instrument is one of the most

commonly used in assessing psychological stress, and permission is not required when used for non-profit academic research (Carnegie Mellon University, 2015). This instrument will provide a consistent indicator of the level of stress of an individual, which can be then evaluated with HRQoL score as well as by the presence of a conflict situation. Lastly, a ten-question human insecurity scale instrument, adapted from Ziadni et al. (2011), was included to assess the level of insecurity felt by each individual. Permission was received to adapt this instrument via e-mail conversations with one of the study's primary researchers, Dr. Rita Giacaman. The distributed survey also features several additional questions collecting demographic information important for this region, such as age, gender, income level, country (or countries) of citizenship, and number in household (Appendix A). The target dependent variables are SF-36 scores (for each construct as well as overall score), and will be analyzed with the demographic variables that will be collected. PSS score and human insecurity score will also be collected for analysis of the relationship of stress and insecurity with other factors.

Measures

Operational definitions of all measures are in Table 1, along with how scales and constructs are calculated, as dictated by each instrument's individual scoring mechanism. The primary dependent variables are HRQoL (after responses are recoded and standardized, scores closer to 100 indicate better QoL), stress (higher scores indicate higher stress; no recoding is necessary), and insecurity (higher scores indicate higher insecurity; no recoding is necessary) scores. For uniformity with the positive recoding and scaling process, the constructs *Role Limitations due to Physical Health* and *Role Limitations due to Emotional Problems* will be

referred to as *Role Functioning due to Physical Health* and *Role Functioning due to Emotional Problems* within this study.

The primary independent variable is presence of conflict, a binary option (conflict/no conflict) using country of data collection as the proxy variable (Jordan=no conflict, West Bank=conflict). The relationship between presence of conflict and HRQoL is the principal one to be explored in this research, as well as the distinction between outcomes that the citizenship variable could provide. The analysis will be able to identify whether HRQoL is significantly altered, either positively or negatively, by the presence of conflict and citizenship, while controlling for other potential factors. Furthermore, the impact of conflict and other demographic variables on stress and insecurity will also be considered.

The independent variables that serve as covariates in this study were selected based on the literature review above, and are indicative of indicators that, aside from conflict status (country site), are most likely to impact HRQoL, stress, and insecurity, based on the context and culture of this study’s sample. These include household income (measured in Jordanian Dinars [JD], a standard currency in both countries—current exchange rate as of March 2015 is 1 JD to 1.41 American dollars), citizenship, household size, religion, city type, gender, and age (see Appendix A for individual items).

Table 1. Operational definitions of study variables

Variable Name	Variable Type	Operational Definition
Demographics		
<i>Age</i>	<i>Independent</i>	<i>Number between 18-30</i>
<i>Gender</i>	<i>Independent</i>	<i>Male=0 Female=1</i>
<i>Household Income</i>	<i>Independent</i>	<i>Choice of 5 income ranges in JD (see table 2 for ranges)</i>
<i>Citizenship Status</i>	<i>Independent</i>	<i>Palestinian=0, Jordanian=1, Israeli=2</i>

Variable Name	Variable Type	Operational Definition
<i>People in Household</i>	<i>Independent</i>	<i>Choice of 5 ranges (See table 2 for ranges)</i>
<i>Religion</i>	<i>Independent</i>	<i>Muslim=0, Christian=1, Jewish=2</i>
<i>Living Environment</i>	<i>Independent</i>	<i>Urban=0, Rural=1</i>
<i>Long-term Armed Conflict (Country)</i>	<i>Independent</i>	<i>West Bank=0, Jordan=1 (country is the proxy variable)</i>
SF-36		
<i>Physical Functioning</i>	<i>Dependent</i>	<i>Average of 10 SF-36 items (3, 4, 5, 6, 7, 8, 9, 10, 11, 12)</i>
<i>Role Functioning due to Physical Health</i>	<i>Dependent</i>	<i>Average of 4 SF-36 items (13, 14, 15, 16)</i>
<i>Role Functioning due to Emotional Problems</i>	<i>Dependent</i>	<i>Average of 3 SF-36 items (17, 18, 19)</i>
<i>Vitality</i>	<i>Dependent</i>	<i>Average of 4 SF-36 items (23, 27, 29, 31)</i>
<i>Emotional Well-being</i>	<i>Dependent</i>	<i>Average of 5 SF-36 items (24, 25, 26, 28, 30)</i>
<i>Social Functioning</i>	<i>Dependent</i>	<i>Average of 2 SF-36 items (20, 32)</i>
<i>Bodily Pain</i>	<i>Dependent</i>	<i>Average of 2 SF-36 items (21, 22)</i>
<i>General Health</i>	<i>Dependent</i>	<i>Average of 5 SF-36 items (1, 33, 34, 35, 36)</i>
<i>Physical Construct</i>	<i>Dependent</i>	<i>Average of 4 SF-36 constructs (Physical Functioning, Role Functioning due to Physical Health, Bodily Pain, and General Health)</i>
<i>Mental Construct</i>	<i>Dependent</i>	<i>Average of 4 SF-36 constructs (Role Functioning due to Emotional Problems, Emotional Well-being, Social Functioning, Vitality)</i>
<i>Overall SF-36</i>	<i>Dependent</i>	<i>Total score of 36 SF-36 survey items</i>
PSS-4		
<i>Perceived Stress</i>	<i>Dependent</i>	<i>Average score of 4 survey items (1-5 scale from "never" to "very often").</i>
Insecurity		
<i>Insecurity</i>	<i>Dependent</i>	<i>Average score of 10 survey items (1-5 Likert scale)</i>

Data Analysis

For the multiple purposes of this study, several statistical methods were employed, including descriptive, *t*-tests, ANOVA, correlations, and multiple regression. Descriptive statistics provided means and standard deviations of participant responses to assess their univariate distribution. Initial data analysis using *t*-tests focused on country as the primary independent variable (country is acting as a proxy variable for presence of conflict), in an effort to compare mean scores of the participants from the two collection countries.

In order to test H_{a1a} , H_{a2a} , and H_{a3a} (the hypotheses that differentiated Israeli or Palestinian citizenship in the West Bank sample), ANOVA was performed in order to compare the means of the three primary citizenship groups: Jordanian, Israeli, and Palestinian. To prepare for the multiple regression analysis, Pearson Correlation analysis was conducted to determine existing bivariate relationships in the data set. Finally, the multiple regression was performed in order to assess which factors best predicted survey outcomes. The results of each individual test, as well as the hypothesis testing, are described in detail in the *Results* section of this paper.

Ethics

As described in the methodology, all efforts were taken to ensure respondent anonymity. No identifying information, such as name or student ID number, was collected. The research assistant was not in the room when students were filling out and returning surveys. Students could opt to refuse to take the survey and skip questions they felt uncomfortable answering. Although no students opted out, several students did return blank or incomplete surveys. The surveys were securely stored and remained with the research assistant, and the primary researcher alone carried out data analysis. No bias on the part of the researcher is apparent in the

undertaking of this study. Due to the inclusion of human subjects, IRB approval was required to proceed with the data collection (Appendix B).

Pipeline

Data was only collected at one point during the survey distribution process. Thus, the students in each class (estimated to be between 40-50 per classroom) were all given the surveys at one time, and multiple classrooms were surveyed throughout the time at each university. A sufficient sample was gathered without difficulty.

Response Rates

Overall, 816 surveys were distributed. Six were returned blank, giving a response rate of 99.3%. Of the returned surveys, 17 of the respondents were foreign nationals studying at one of these universities (primarily from Indonesia), and these surveys were excluded from analysis, leaving 793 surveys (398 from the West Bank [50.2%] and 395 from Jordan [49.8%]). Two of the students in the West Bank sample identified as Samaritan (a Semitic group affiliated with Judaism, many of whom live in a community outside of Nablus) while eighteen students from both sites marked their citizenship as Palestinian refugee. These cases were excluded from the citizenship analyses due to their low numbers. Further, refugee status has been thoroughly addressed in the literature, especially among the Palestinian refugee community, and was not the focus of this study.

CHAPTER FOUR: RESULTS

Descriptive

Descriptive statistics are presented in Tables 2 and 3. Demographic characteristics such as gender and age split in generally similar proportions between the conflict (West Bank) and non-conflict (Jordan) groups, with the exception of income and household size. There were more Jordanians in the lower income brackets (60% of those making less than 6000 JD) and more Palestinians in the higher income brackets (74% of those making more than 18100 JD). More Jordanians lived in extremely crowded households (70% of those with 11 or more people) than Palestinians. Most of the respondents were female (70%) and, as expected, an overwhelming majority was Muslim (97%). In the West Bank sample, a full third of respondents (33%) had Israeli citizenship, as opposed to only 3 total in the Jordanian sample. There were some patterns seen in scores with other demographic variables, such as household size and income, but representation in each group was too varied to assess statistical significance using these characteristics. Chi-square tests found no statistically significant relationship between gender, age, city type, or religion and the countries; however, there was a relationship between country and citizenship (as expected), household size, and income. See Table 2 for a more detailed demographic breakdown, and Table 3 for descriptive statistics about the survey responses.

Table 2. Demographic characteristics of sample by country

	West Bank	Jordan	Total
	(n=398)	(n=396)	(n=794)
Gender [†]			<i>(% of total)</i>
<i>Male</i>	114 (48.3%)	122 (51.7%)	236
<i>Female</i>	280 (51.7%)	262 (48.3%)	542
Age [‡]			<i>Mean=20.2 SD=2.5</i>
18	36	23	59
19	86	76	162

	West Bank	Jordan	Total
20	128	114	242
21	83	85	168
22	35	47	82
23	9	13	22
24+	8	16	24
City [§]	(% of total)		
Urban	195 (52.3%)	178 (47.7%)	373
Rural	203 (48.4%)	216 (51.5%)	419
Citizenship	(% of country)		
Palestinian	228 (57.4%)	9 (2.3%)	237
Jordanian	26 (6.5%)	368 (95.1%)	394
Israeli	132 (33.2%)	3 (0.8%)	135
Palestinian refugee	11 (2.8%)	7 (1.8%)	18
Household [‡]	(% of total)		
1	2 (33.3%)	4 (66.6%)	6
2-4	52 (60.5%)	34 (39.5%)	86
5-7	214 (56.3%)	166 (43.7%)	380
8-10	112 (43.1%)	148 (56.9%)	260
11+	18 (30%)	42 (70%)	60
Religion ^Φ			
Muslim	377	386	763
Christian	14	6	20
Jewish	2	0	2
Other	3	2	5
Household Income (in Jordanian Dinar) [Ⓚ]			
<6000 JD	155	218	373
6100-12000 JD	113	117	230
12100-18000 JD	50	35	85
18100-24000 JD	33	13	46
>24100 JD	29	9	38

†: $\chi^2(3, n=778)=2.787, p=.426$

‡: $\chi^2(17, n=767)=16.495, p=.489$

§: $\chi^2(2, n=793)=2.167, p=.338$

||: $\chi^2(4, n=789)=628.4, p<.001$

‡: $\chi^2(4, n=792)=25.1, p<.001$

Φ: $\chi^2(3, n=790)=5.501, p=.139$

Ⓚ: $\chi^2(4, n=772)=32.401, p<.001$

Table 3. Average scores of full study sample on survey instrument

	Mean	SD
SF-36		
<i>Physical Functioning</i>	70.0	45.1
<i>Role Functioning due to Physical Health</i>	59.4	35.5
<i>Role Functioning due to Emotional Problems</i>	44.9	39.3
<i>Vitality</i>	51.7	18.1
<i>Emotional Well-being</i>	52.6	20.0
<i>Social Functioning</i>	63.3	22.5
<i>Pain</i>	75.4	20.8
<i>General Health</i>	59.7	15.3
<i>Mental Construct</i>	53.2	18.1
<i>Physical Construct</i>	66.7	19.8
<i>Overall SF-36</i>	60.3	16.2
PSS-4		
<i>Stress</i>	3.03	0.55
Insecurity		
<i>Insecurity</i>	3.32	0.92

Mean scores of the multiple survey instruments provided surprisingly descriptive results. For the SF-36 constructs (the closer to 100, the better the HRQoL), the Jordanian sample had the lowest mean score in every indicator, as compared to the West Bank sample as a whole (in some cases by a large margin), and when the citizenship variable was split into Palestinian and Israeli, the Jordanian sample had lower scores than even those with Palestinian citizenship. The Jordanian sample reported scores lower than the mean of the entire study sample, indicating that the Jordanian sample lowered the overall mean for all indicators. In the PSS-4 instrument (the closer to 5, the higher the perceived stress), the Palestinian and Jordanian samples had nearly identical means, which were on par with the overall study sample mean. The Israeli citizenship group reported scores that were slightly lower. The insecurity instrument (the closer to 5, the

higher the insecurity) also presented a surprising result: the Israeli sample actually reported the highest score, followed by the Palestinian and then Jordanian sample. More details about the statistical significance of these results can be found in the *t*-tests and ANOVA sections of these findings.

***T*-tests**

T-test results are in Table 4. With the SF-36 instrument, without exception, the West Bank sample featured statistically significantly higher mean scores than the Jordanian sample, with the disparity in points ranging from 3.7 (for the *Bodily Pain* construct) to 17.7 (for the *Role Functioning due to Physical Health* construct). The *Bodily Pain* construct was significant at the .05 level, the *Vitality* construct was significant at the .005 level, and the remaining SF-36 constructs were significant at the <.001 level. This data indicates that HRQoL in the West Bank sample is higher than HRQoL in the Jordanian sample. These results run entirely counter to the expectations of the H_{a1}/H_{o1} hypothesis, and thus the null hypothesis could not be rejected.

The *Stress* and *Insecurity* scales were less conclusive, but also ran counter to expectations. Means between the two sites were extremely similar, and mean differences were not statistically significant at the .05 level. However, in both cases, descriptive data indicated that the West Bank sample had higher scores by a very thin margin. This data set suggests that the presence of conflict in the West Bank has not significantly increased perceived stress or insecurity for this study sample. Thus, null hypotheses H_{a2} and H_{a3} were ultimately not rejected either. Table 4 describes the means of both sites, as well as their corresponding statistics.

Table 4. T-test data with country as the independent variable

Indicator	Country	N	Mean	SD	F	t	p
SF-36							
<i>Physical Functioning</i>	WB	375	77.4	24.5	7.47	4.56	.000
	J	361	62.4	58.4			
<i>Role Functioning due to Physical Health</i>	WB	388	68.2	34.7	4.95	7.18	.000
	J	383	50.5	34.0			
<i>Role Functioning due to Emotional Problems</i>	WB	387	50.2	41.7	39.53	3.82	.000
	J	377	39.4	35.8			
<i>Vitality</i>	WB	378	53.6	18.5	1.98	2.89	.004
	J	369	49.8	17.5			
<i>Emotional Well-being</i>	WB	373	55.3	20.2	0.36	3.71	.000
	J	364	49.9	19.5			
<i>Social Functioning</i>	WB	392	66.6	23.4	5.13	4.15	.000
	J	380	60.0	21.1			
<i>Pain</i>	WB	391	77.2	20.7	0.10	2.48	.013
	J	386	73.5	20.7			
<i>General Health</i>	WB	381	63.2	15.6	3.82	6.73	.000
	J	358	55.9	14.0			
<i>Mental Construct</i>	WB	356	56.1	20.3	49.9	4.49	.000
	J	343	50.1	15			
<i>Physical Construct</i>	WB	353	72.2	17.0	0.03	7.82	.000
	J	330	60.9	20.8			
<i>Overall SF-36</i>	WB	324	64.4	16.2	9.56	6.87	.000
	J	304	55.8	15.0			
PSS-4							
<i>Stress</i>	WB	389	3.03	.51	4.38	0.28	.778
	J	382	3.02	.59			
Insecurity							
<i>Insecurity</i>	WB	379	3.4	.92	0.04	1.74	.082
	J	346	3.3	.93			

ANOVA

Table 5 shows the ANOVA results of the three primary citizenship groups: Jordanian, Israeli, and Palestinian. For several of the SF-36 constructs, there were statistically significant differences in the means between the three groups, based on Tukey post-hoc analysis. The Israeli citizenship group, as previously described, had the highest mean for every construct except for *Role Functioning due to Physical Health*, where the Palestinian citizenship mean was

statistically significantly higher, $F(4,728)=4.36, p<.05$. The Israeli citizenship sample reported statistically significantly higher means for *Role Functioning due to Physical Health*, $F(4,762)=11.76, p<.001$; *Vitality*, $F(4,738)=3.15, p<.05$; *General Health*, $F(4,730)=9.39, p<.001$; and *Physical*, $F(4,675)=12.73, p<.001$. Although the SF-36 results were mixed, these results coupled with the other data analyses support hypothesis H_{a1a} .

There was no statistically significant difference in perceived stress between citizenship statuses, causing the researcher to reject hypothesis H_{a2a} . With the final indicator (insecurity), there was a statistically significant difference between the means, $F(4,716)=3.49, p<.05$, however not in the direction that was expected. The Israeli citizenship sample reported the highest mean, thus rejecting hypothesis H_{a3a} .

Table 5. ANOVA results using citizenship status as the independent variable

	Overall		Palestinian		Israeli		Jordanian		F	p
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
SF-36										
<i>Physical Functioning</i>	70.2	45.1	77.4	23.4	76.4	26.7	63.7	58.6	4.36	.002
<i>Role Functioning due to Physical Health</i>	59.5	35.5	67.8	34.4	69.7	35.0	51.7	34.4	11.76	.000
<i>Role Functioning due to Emotional Problems</i>	45.0	39.0	45.9	40.0	61.4	42.6	39.0	36.0	8.56	.000
<i>Vitality</i>	51.7	18.1	52.2	18.4	56.3	19.0	50.0	17.6	3.15	.014
<i>Emotional Well-being</i>	52.6	20.0	53.5	21.5	58.2	19.5	49.7	19.0	5.26	.000
<i>Social Functioning</i>	63.3	22.5	66.4	22.3	69.4	24.8	59.7	21.2	6.73	.000
<i>Bodily Pain</i>	75.4	20.7	76.5	20.2	78.8	21.8	73.6	20.3	2.32	.055
<i>General Health</i>	59.6	15.3	62.8	15.3	64.7	16.1	56.5	14.4	9.39	.000
<i>Mental Construct</i>	53.2	18.1	54.7	19.4	60.4	22.0	49.8	15.0	8.74	.000
<i>Physical Construct</i>	66.8	19.7	71.5	16.6	73.2	17.2	61.8	20.9	12.73	.000
<i>Overall SF-36</i>	60.3	16.2	63.7	15.4	66.7	17.3	56.2	15.0	12.48	.000
PSS-4										
<i>Stress</i>	3.03	0.55	3.04	0.46	2.95	0.60	3.03	0.58	1.75	.137
Insecurity										
<i>Insecurity</i>	3.32	0.92	3.28	0.92	3.56	0.91	3.25	0.92	3.49	.008

Correlations

Table 6 includes the correlation coefficient for all included variables. Based on the weak correlation coefficients, H_{a4} (relationship between high stress and low HRQoL) and H_{a6} (relationship between high insecurity and high stress) were ultimately rejected, also supported by multiple regression. H_{a5} (relationship between high insecurity and low HRQoL) was, however, supported. The correlation coefficient between *Insecurity* and the *Overall SF-36* instrument showed a moderate negative relationship ($r=-.185, p<.01$), and accordingly there were small, statistically significant negative correlations between insecurity and the overall *Physical* construct of the SF-36 ($r=-.159, p<.01$), as well as the overall *Mental* construct of the SF-36 ($r=-.125, p<.01$). Existing conflict zone studies also capture this inverse relationship between insecurity with HRQoL and general QoL measures.

While many of the correlation coefficients were significant at the 0.05 and even 0.01 levels, few of the correlations revealed strong relationships. However, several interesting relationships did emerge. Income was weakly correlated with the *Overall SF-36* ($r=.109, p<.01$), as well as the *Physical* ($r=.103, p<.01$) and *Mental* ($r=.121, p<.01$) constructs, supporting existing literature that suggests that those with greater access to resources will have higher quality of life. The PSS score also showed a small correlation with household size ($r=.114, p<.01$), indicating that perceived stress increases in houses where available resources may be stretched.

Table 6. Correlational analysis of selected demographics with survey outcomes

	<i>Income</i>	<i>House- hold</i>	<i>Age</i>	<i>Physical</i>	<i>Mental</i>	<i>Overall SF-36</i>	<i>Insecurity</i>	<i>PSS</i>
<i>Income</i>	1	-.085*	.071	.103**	.121**	.109**	.006	.004
<i>House- hold</i>	.	1	.063	-.059	-.101**	-.100*	-.040	.114**
<i>Age</i>	.	.	1	-.006	-.017	.011	-.014	.048
<i>Physical</i>	.	.	.	1	.425**	.858**	-.159**	-.017
<i>Mental</i>	1	.830**	-.125**	-.096*
<i>Overall SF-36</i>	1	-.185**	.078
<i>Insecurity</i>	1	.037
<i>PSS</i>	1

*= $p < .05$

**= $p < .01$

Regression

Multiple regression analyses were conducted to examine the relationship between the survey instrument scores and predictor variables that focus on demographic characteristics of the population, as well as the presence of conflict (denoted by the proxy variable *country*) and citizenship. Table 7 details the overall regression data and appropriate statistics for each survey instrument (and the multiple constructs of the SF-36). Overall, it is evident that from the data collected from this study sample that the presence of conflict did not predict lower HRQoL scores, running counter to study expectations. In fact, for the constructs *Physical Functioning*, *Role Functioning due to Physical Health*, *General Health*, *Physical*, and the *Overall SF-36* score, the West Bank sample reported statistically significantly higher scores. The results fail to reject the null hypotheses for H_{a1} , H_{a2} , and H_{a3} . While Jordanian citizenship did not correspond with any statistically significant β -coefficients, Palestinian Israeli citizenship predicted higher *Role Functioning due to Emotional Problems*, *Vitality*, and *Mental* scores, as was expected; however, it also predicted higher insecurity, which is a surprising outcome.

The demographic predictor variables also reported several interesting results. Higher income predicted better *Physical Functioning*, while larger household size predicted higher stress. These results support the existing literature regarding quality of life and other social indicators. Female gender predicted lower scores in the *Mental Construct*, while male gender predicted lower *Role Functioning due to Physical Health*. Higher age moderately predicted lower *Social Functioning*, but age and gender were overall not strong predictors of HRQoL, stress, or insecurity, running counter to some of the existing research in this field.

Table 8 includes the regression for H_a4, and the PSS instrument was added to the predictor variables in the regression model to account for the impact of stress on HRQoL outcomes. Higher stress did predict lower scores in the *Mental* construct, but was not a statistically significant indicator for the *Physical* construct or *Overall SF-36*. Thus, the null hypothesis for H_a4 cannot be rejected.

The relationship between insecurity and HRQoL was more conclusive. When the Insecurity instrument was added as a predictor variable, it was evident that higher insecurity predicted lower HRQoL in each outcome (*Mental, Physical, and Overall SF-36*). Indeed, the highest R² in the regression analysis was reported in this model, with the demographic variables, the presence of conflict, and insecurity scores accounting for nearly 13% of overall SF-36 variance. H_a5 is supported, illustrating the complex relationship between insecurity and HRQoL (Table 9).

In Table 10, the regression model was changed so that PSS-4 was the outcome variable, while leaving insecurity in the model. However, insecurity did not predict any variation in stress, causing the researcher to reject H_a6. Overall, the low R² values throughout each regression model

indicate that the proposed predictor variables did not account for a significant amount of variance in the survey instruments.

Table 7. Conflict and quality of life regression[§]

	Country 0=West Bank, 1=Jordan	Income	Jordanian Citizenship [§]	Israeli Citizen- ship [§]	Household Size	Religion 0=Muslim, 1=Christian	City Type 0=Urban, 1=Rural	Gender 0=Male, 1=Female	Age	R ²
SF-36										
<i>Physical Functioning</i>	-.159*	.098*	.014	-.026	.007	-.010	-.030	.035	-.013	.035
<i>Role Functioning due to Physical Health</i>	-.258***	-.049	.023	.061	.016	.033	-.012	.079*	.023	.074
<i>Role Functioning due to Emotional Problems</i>	.011	.067	-.067	.149**	-.046	.032	.024	-.063	-.061	.056
<i>Vitality</i>	-.053	.027	.016	.114**	.007	.114**	-.032	-.067	-.058	.042
<i>Emotional Well-being</i>	-.022	.041	-.079	.065	-.062	.022	-.005	-.073	-.042	.039
<i>Social Functioning</i>	-.020	.071	-.101	.083	.030	.022	.029	-.038	-.079*	.046
<i>Bodily Pain</i>	-.030	.005	-.023	.041	-.053	-.012	-.028	-.075	-.034	.017
<i>General Health</i>	-.257**	.065	.058	.046	-.015	.028	.018	-.036	-.018	.069
<i>Mental Construct</i>	-.008	.061	-.087	.131**	-.041	.071	.002	-.090*	-.071	.069
<i>Physical Construct</i>	-.289***	.038	.042	.046	.001	.022	-.009	.028	-.011	.085
<i>Overall SF-36</i>	-.179*	.036	-.032	.093*	-.026	.060	-.002	-.023	-.012	.087
PSS-4										
<i>Stress</i>	-.115	.012	.068	-.071	.129**	.019	-.058	.055	.065	.029
Insecurity										
<i>Insecurity</i>	.005	-.047	-.028	.144**	-.004	.034	.025	.014	-.017	.025

Table 8. Stress and HRQoL regression using SF-36

	Country 0=West Bank, 1=Jordan	Income	Jordanian Citizenship [§]	Israeli Citizen- ship [§]	Household Size	Religion 0=Muslim, 1=Christian	City Type 0=Urban, 1=Rural	Gender 0=Male, 1=Female	Age	Stress	R ²
<i>Mental Construct</i>	-.007	.057	-.084	.133**	-.030	.074	-.004	-.090*	-.073	-.086*	.077
<i>Physical Construct</i>	-.288***	.038	.046	.050	.005	.024	-.013	.029	-.013	-.011	.084
<i>Overall SF-36</i>	-.190*	.034	-.020	.090	-.022	.061	-.005	-.022	-.011	-.065	.091

Table 9. Insecurity and HRQoL regression using SF-36

	Country 0=West Bank, 1=Jordan	Income	Jordanian Citizenship [§]	Israeli Citizen- ship [§]	Household Size	Religion 0=Muslim, 1=Christian	City Type 0=Urban, 1=Rural	Gender 0=Male, 1=Female	Age	Insecurity	R ²
<i>Mental Construct</i>	.003	.043	-.093	.158**	-.046	.080*	.018	-.105*	-.084	-.162***	.094
<i>Physical Construct</i>	-.270***	.029	.032	.074	-.001	.030	-.006	.022	-.029	-.183***	.112
<i>Overall SF-36</i>	-.158*	.014	-.044	.126**	-.037	.069	.014	-.038	-.027	-.220***	.129

Table 10. Insecurity and stress regression using PSS-4

	Country 0=West Bank, 1=Jordan	Income	Jordanian Citizenship [§]	Israeli Citizen- ship [§]	Household Size	Religion 0=Muslim, 1=Christian	City Type 0=Urban, 1=Rural	Gender 0=Male, 1=Female	Age	Insecurity	R ²
<i>Stress</i>	-.149*	.031	.110	-.083	.122**	.014	-.056	.042	.057	.065	.034

*p<.05; **p<.01; ***p<.001

§ Palestinian citizenship used as reference variable

Country: 0=West Bank, 1=Jordan

Citizenship Indicators: 0=No, 1=Yes

City Type: 0=Urban, 1=Rural

Gender: 0=Male, 1=Female

Religion: 0=Muslim, 1=Christian

CHAPTER FIVE: DISCUSSION

Hypotheses H_{a1} , H_{a2} , H_{a2a} , H_{a3} , H_{a3a} , H_{a4} , and H_{a6} were rejected based on several tests of significance using the data collected from this study's sample. Hypotheses H_{a1a} and H_{a5} were supported, supporting that Palestinians who are citizens of Israel and thus have access to the benefits of this citizenship status had better HRQoL, and that in general, high levels of insecurity have an inverse relationship with HRQoL.

Thus, for the most part, results from this study run counter to initial expectations. While descriptive statistics, t -tests, and the correlational analysis indicated several statistically significant higher HRQoL scores in the West Bank sample, when other factors such as age and socioeconomic status are controlled for, the significant results are reduced. Thus, overall these results indicate that conflict is not necessarily related to lower quality of life. Additionally, the R^2 statistics from the regression models were all low, indicating that despite the inclusion of relevant independent variables and an effort to equalize the samples from both countries, this study was unable to capture the specific factors that caused HRQoL scores to be higher in the West Bank than in Jordan, even if the difference was significant. This suggests other factors, perhaps even intangible ones, influence this outcome, which, it is important to remember, is a self-reported measure.

Why didn't the West Bank sample report worse HRQoL, stress, and insecurity scores than the Jordan sample? In the Croatian study discussed in the literature review, the war-affected sample reported lower scores for the *Role Functioning due to Physical Health*, *Social Functioning*, *Role Functioning due to Emotional Problems*, and *Mental Health* constructs than the non-affected sample in the 18-24-year-old group (Babic-Banaszak, Kovacic, Kovacevic,

Vuletic, Mujkic, & Ebling, 2002). While their HRQoL results were not consistently lower in the war-affected population, most of the mental health constructs of the SF-36 reflected expectations of lower mental functioning in the sample that had greater exposure to the manifestations of war. Yet, that was not found to be the case in this study. Further, with the copious amount of literature supporting the idea that Palestinians, even children, are at much higher risk for poor mental and physical health outcomes, from PTSD to metabolic disorder, how is it possible that their scores for HRQoL, stress, and even insecurity are better than those of their Jordanian neighbors? From a thorough review of the literature, as well as an examination of the current political climate in the region, three important concepts that may explain these results emerge. The first is the concept of resilience in the Palestinian population. The literature shows that resilience can normalize even the most extraordinary circumstance and lead to a sense of pragmatism and strength that can be impossible to understand from an external perspective.

The second is the impact of the heightened tension in today's Middle East on Jordan, as a result of the Islamic State, the Syrian Civil War, increasingly dictatorial regimes in Turkey and Egypt, reignited tensions between Israel, Hamas, and the PNA, and the resulting crushing burden of Iraqi, Palestinian, and Syrian refugees in Jordan. These external pressures, coupled with Jordan's pre-existing economic and political troubles, have placed an abnormal amount of strain on the tiny nation and, undoubtedly, its people have suffered as a result. Lastly, the complex relationship between socioeconomic status and its impacts on the quality of life in an individual may not have been fully captured with the collected data. The detailed role of these concepts in the results of this study will be addressed in the following sections.

Resilience and Social Support as Mediating Factors

Despite often unimaginable circumstances, there is a solid literature base that supports the idea of resilience in survivors of various types of trauma. As an emerging concept, there are multiple definitions of resilience in the literature, such as “ability to maintain healthy functioning following traumatic events, “capacity for successful coping,” “emotional stamina,” and “successful adaptation to stressful environments” (Almedom & Glandon, 2007). However, despite slight variance, it seems evident that “resilience” is generally accepted to be defined as maintaining healthy mental and physical functioning despite a stressful environment or seemingly insurmountable obstacles. For Palestinians, this concept even has a term: *sumud* (steadfastness), a method of resistance employed by simply living life and even thriving, despite exceptional obstacles and constant trauma (Richter-Devroe, 2011). To Palestinians, exhibiting *sumud* is the only way to experience freedom in circumstances when their actual self-determination is not in their own hands. There are three distinct areas in which resilience is displayed in individuals: those experiencing secondary traumatic stress or compassion fatigue, those of direct trauma survivors, and those affected by politically motivated violence. The last category is unique in that it goes beyond affecting just individuals and perhaps their families, but also affects the communities in which they live (Hernandez, Gangsei, & Engstrom, 2007).

The relationship between resilience and quality of life has been well established in post-disaster situations, where resilience positively affects both quality of life and health. Social support can not only promote resilience, but also serve as a mediating factor (among others) between resilience and quality of life (Xu & Ou, 2014). This resilience can explain why individuals in conflict-affected areas continue to survive and even thrive. It is important to distinguish resilience, which denotes a relatively stable and healthy functioning, with recovery,

which indicates that healthy functioning at least temporarily subsided and needs to improve. Unfortunately, since most of the mental health literature is based on individuals with diagnosed mental disorders or that are symptomatic (for example, previous studies of Palestinians focusing on PTSD, anxiety, or aggression), they tend to take a perspective of looking at how to recover when a trauma has already occurred and a person's functioning is impaired; rarely do they consider the multitude of cases where a trauma has had no discernable impact on the individual, and why that happens. Emerging research suggests that it is for this very reason that resilience is much more common than has been established in the literature. Further, resilience comes in many forms, from active self-enhancement to simple laughter and good humor about poor circumstances (Bonanno, 2004). Hearing a Palestinian tell a story about being delayed at a checkpoint for hours or having their travel permit denied with a smile on their face can be initially jarring. However, it becomes quickly evident that the laughter is a coping mechanism; a way of acknowledging the absurdity of the situation as well as the inevitability that there is nothing they can do about it, so why not laugh?

Despite the overwhelming hardship that protracted conflict can have, there are other elements that contribute to the mental health and overall functioning of individuals living in extreme circumstances. Resilience can be seen as a dynamic process that can be affected by factors such as social environment, family characteristics, and individual personality, not just a trait that an individual naturally possesses (Khamis, 2005; Luthar, Cicchetti, & Becker, 2000). Further, gender, socioeconomic status, level of parental education, and parental mental health have been shown to impact how individuals respond to political violence. Not surprisingly, the ability to be resilient in conditions of war is highly dependent on whether other aspects of life, such as gender equality, socioeconomic comfort, and opportunities to succeed, are present (Al-

Krenawi & Graham, 2012; Massad et al., 2009). Conversely, individuals in conflict situations who have other psychological burdens, such as poverty, being elderly or disabled, or lacking education, are more likely to be vulnerable to the additional stressors of their environmental trauma and less able to be resilient in the face of it than their more secure and supported counterparts, even with the same external struggles (Khamis, 1998).

While it is impossible to ignore the aforementioned higher rates of PTSD, aggression, anxiety, and other poor mental health outcomes among Palestinians, some researchers have critiqued the extant perception of all Palestinians as being high-risk, pathological, and having a higher propensity for senseless violence, and for focusing solely on “what is wrong” with the Palestinians. This does not allow for any sense of understanding the positive, “life-affirming” momentum within this population, and excludes concepts like resilience and coping skills (Nguyen-Gillham, Giacaman, Naser, & Boyce, 2008). There is an emerging body of literature that looks at measuring resilience as a counter to the existing “deficit” models of mental illness. This literature supports the idea that resilience can be a significant measure in an individual’s overall well-being and quality of life (Windle, Bennett, & Noyes, 2011). Just as health is not merely the absence of disease, but is instead a positive state with its own characteristics, resilience should also not be seen only as a lack of negative mental health indicators, but as a unique trait that develops according to circumstance and individual hardiness (Almedom & Glandon, 2007). A 2006 study of death obsession scores from Palestinians and four of their relatively peaceful (at the time of the study) Arab neighbors (Egypt, Kuwait, Syria, and Lebanon) found that despite Palestine’s environment of occupation and clashes, Palestinians actually reported the lowest scores. The researchers believed that because of the sheer long-term and intergenerational nature of the Palestinian conflict, the people have simply adapted to the

stress and have reached a level of necessary pragmatism (Abdel-Khalek, Al-Arja, & Abdalla, 2006).

To be resilient is to have the will to simply keep moving forward despite obstacles that outsiders may view as intolerable. Studies have found that resilient children are able to not only sustain positive mental health, but are also able to go so far as to “blossom” in unfavorable conditions. Indeed, it is seemingly the lack of mental health disruption in unstable societies that seems to indicate that resilience develops in most individuals to permit them to adequately adapt to such circumstances (Peltonen, Quota, Diab, & Punamaki, 2014). One study of Palestinian youth found that students view their sheer existence as a form of resistance, which in turn keeps them resilient and even ambitious, saying, “Education is a challenge, defying Israelis who become furious when seeing us continue with our lives despite everything they do to us” and “Education means everything. It is our only weapon. They can kill everybody including our families but not our education because it is in our heads.” These types of quotes indicate that resilience is not extraordinary action, but rather the ability to continue otherwise ordinary actions in extraordinary circumstances (Nguyen-Gillham, Giacaman, Naser, & Boyce, 2008). It is likely that the students in this study would express similar attitudes about education. Palestinian women find ways to circumvent cultural and religious norms regarding their roles in society by framing educational attainment, employment, travel, and other independent actions not as rebellion, but as *sumud*, resisting in a way that is nonviolent, life-affirming, and insists on their right to be normal and have fun (Richter-Devroe, 2011). The ability to go to school, listen to music, interact with friends, and buy gifts are for Palestinians not just everyday acts, but minor political statements. It is their way of saying, “I am still here.”

The relationship between conflict and resilience is unique in that the trauma is on the community level; when everyone in the environment is experiencing suffering as a result of the same stimulus, it lends a normative effect to the circumstances. Further, individuals in such conditions tend to express more altruistic behavior and feel a common “sense of solidarity” with each other (Kaniasty & Norris, 2008). The presence of war tends to lead to greater social cohesion for the politically like-minded, which can buffer some potential negative mental impacts from the conflict; there are multiple examples where, for example, suicide rates drop during times of war (Bracken, Giller, & Summerfield, 1995). In the Palestinian context, especially since the second Intifada in the early 2000s, regular clashes, floating checkpoints, strict use of permits, everyday harassment, and other traumatic actions of the occupation have become a normal part of everyday life (Allen, 2008). The participants used in this study (college students) were likely young children or in early adolescence around this time; thus, for nearly the entirety of their lives, these conditions are all they have known. While older generations of Palestinians have memories of the times before the 1967 war, and some even before the establishment of the state of Israel in 1948, the current college-aged West Bank Palestinian has only lived in a divided, constricted, and occupied homeland. The consequences of this occupation and its expansion into activities of daily living for these Palestinians are merely a chore to get through before they can continue about their day. Their steadfast resilience may spring up not despite traumatic experiences, but because of them. Summerfield (2012) argues, “With 90% of recent wars being civil, negotiations between ordinary people about their feelings of mistrust or revenge and about issues of responsibility, culpability, and restitution must typically be pragmatic.” This indicates that although individuals in war do suffer its

consequences and experience them intensely, they also come to terms with their environmental and societal limitations, and attempt to navigate them the best they can.

To be clear, Palestinian resilience does not mean they do not suffer, or struggle, or experience feelings of loss, grief, and trauma. Indeed, the opposite is true; they certainly suffer, and they certainly grieve, but they are able to draw on a cultural reserve that serves as a powerful antidote. The entire community psychology of Palestinians is clearly unique in the conflict literature, with such a deep historical, religious, and ideological combination that it may allow them to transcend humiliation and trauma.

The Role of Resilience in Interpreting the Results of this Study

This discussion about resilience during times of conflict, particularly in the Palestinian context, is an effort to understand the seeming lack of decreased quality of life in the Palestinian sample of this study, as well as the lack of increased stress and insecurity. Previous studies in this field have primarily succeeded in comparing Palestinians to each other; this negates the influence of resilience as a factor, since, if it is a core Palestinian value as the literature suggests, it will serve as a buffer for all Palestinians. Only when comparing the Palestinian sample with a sample that is extremely similar, but not suffering from decades of war and occupation, can the potential protective effect of resilience be recognized. How is it possible that Palestinians are not reporting significantly higher stress and insecurity than their neighbors? What circumstances would lead Palestinians to report higher HRQoL scores, despite the challenges to their social support infrastructure, including healthcare? I posit that it is in how they frame their life struggles; by giving them meaning, by viewing overcoming adversity as winning even some small victory, and by maintaining a sense of pragmatism to circumstances that would cause the

mental health of most individuals placed in such a situation to deteriorate, Palestinians are able to overcome typical Western assumptions about their condition. Rather than think about “what is wrong” with Palestinians, perhaps we must consider what they are doing to be able to persevere and maintain any sense of optimism despite a reality that is contrary to hope.

The Impact of the Turmoil in the Middle East on Jordan

Aside from the resilience that may have mediated the impact of conflict on the Palestinian population, it seems likely that the current deterioration of stability in the Middle East has cast an unusually heavy burden on the Jordanian population, perhaps (even temporarily) lowering their scores on this study’s survey instruments. However, instability in Jordan is a relatively recent phenomenon. Jordan was part of a rapid period of economic liberalization starting in the 1980s, prompted by a need to cooperate with World Bank and IMF reforms. As a result, many of the safety nets that had been a part of the social fabric of the country, such as health care, education, and even government-ensured jobs, were limited or eliminated. These provisions were a part of the “social contract” that provided loyalty to the ruling monarchy, and upon the enactment of reforms, unemployment and poverty increased (El-Said & Harrigan, 2014). Therefore, Jordan is starting to have to manage several rising issues regarding social mobility and employment, corruption in the public sector and within the monarchy, a burgeoning sense of nationalism, the pressures of the Arab Spring, and now an unprecedented refugee influx (nearly 600,000 refugees registered as of mid-2014). Jordan is also in the midst of discussions about restructuring into a constitutional monarchy as a result of an outpouring of protests and strikes starting in 2011 (Khorma, 2014). As a resource-poor nation, Jordan has not made the necessary structural changes in its economy, namely increasing skilled labor and adapting to

technology, that it takes to compete globally, and their dependence on international aid and foreign nationals has been an unsustainable economic model (Abugattas-Majluf, 2012). Without a collective Jordanian narrative or identity, or a redefinition of its social structure and economy, it may be difficult for Jordanian citizens to cope with their rapidly changing society.

Jordan trails only Yemen, Sudan, and Syria in terms of being the poorest Arab country, but has one of the highest costs of living, particularly for food and fuel. Additionally, the small nation relies heavily on imports, with a full 87% of calories consumed by the average Jordanian being imported. Food costs are rising due to extreme weather in countries that export food to Jordan, and a rise in fuel taxes that was meant to cut the public deficit has led to protests (Ferguson, 2012). The majority of the Jordanian sample in this study reported lower socioeconomic brackets and larger household sizes than the Palestinian sample, potentially as a result of the aforementioned issues within Jordan as a whole. This suggests that these respondents were in some level of economic insecurity, which likely decreased their HRQoL and increased their stress and insecurity.

Although Jordan and the other monarchies in the Middle East have weathered the Arab Spring period relatively well, Jordan has been experiencing protests and rallies incited by the economic situation. Although Jordan's official unemployment rate is 11.4%, unofficial estimates are closer to 20%. Islamist groups such as the Muslim Brotherhood attempted to officially organize, and boycotted elections in 2010 and 2013, and other opposition groups called for the dismissal of the government in March 2011. In May 2012, activists marched in Amman and called for an end to the Jordan-Israel treaty, along with other government reforms. In April 2012, Jordan received their fourth prime minister in less than a year and a half (Köprülü, 2014). Students in Jordan report seeing a spike in university student violence, typically based on tribal

and familial lines, and this type of exposure to violence firsthand, in an otherwise non-violent society, may impact a student's mental health (Damra & Ghbari, 2014). Further, the particular city in Jordan where this study's sample was collected, Irbid, has been undergoing significant changes over the past several decades. Previously a small agricultural town, Irbid quickly developed into a metropolitan center after a large influx of Palestinian, Algerian, and then Syrian refugees. Now, like other cities in the region, Irbid's lack of water availability makes large-scale agriculture difficult. Further, a large UNRWA refugee camp is present in the city, and its role as a trade center has led to a diverse and sometimes transient population (Tarawneh & Naamneh, 2011). Combined with these factors, Irbid's rapid development and lack of a cohesive culture or narrative may have negatively impacted the quality of life, stress, and insecurity scores of this study's respondents.

The Role of Jordan's State of Flux in Interpreting the Results of this Study

Inescapable economic stressors, coupled with the swell of demand for resources from a surging refugee population, have caused unrest and discontent within Jordan. The monarchy has attempted to rapidly respond to unrest in the population by enacting mild reforms and appointing more diverse individuals for government posts, such as women and tribal representatives, but this recent bubbling up of latent issues may have increased insecurity and stress among the Jordanian population, reflected in the results of this study (Köprülü, 2014). Further, as the survey data captures in this study are based on self-reported measures, it is based less on reality and more on perception.

Socioeconomic Status and Quality of Life

It is a generally accepted premise that with financial security comes access to resources and the ability to meet basic standards of living. Thus, in many domains, an individual's socioeconomic status (SES) has a direct impact on their quality of life; this disparity becomes self-renewing, particularly in health, since those with access to few resources are unable to take care of their health, thus further decreasing their quality of life (Juarez & Guerra, 2010). This cycle is exacerbated by the presence of conflict, as access to education and employment is threatened. This theme has been demonstrated in previous QoL studies in the oPt, as income and livelihood are directly related to an individual's ability to meet their basic needs (Abu-Rmeileh et al., 2011; Mataria et al., 2009). For the purposes of this study, income was quantified as a categorical variable so general ranges could be applied to responses, however it is possible that this methodological choice did not fully capture the potential impact of income on QoL in this study. Descriptive statistics illustrated some difference in SES, however these differences were not statistically significant between groups and the correlation between income and the outcome variables were weak. Income may have played a greater role than was shown in this analysis, and this may not have allowed the main variable of interest (conflict) to fully reflect its relationship to quality of life.

Study Implications

The Israeli-Palestinian conflict, despite its multiple physical manifestations and its impact on a sizeable population, is largely played out in the diplomatic/political sphere. There is constant talk of a peace process, of peace summits, of UN resolutions, of politically linked reconstruction efforts. Building up the Palestinian economy is discussed primarily with regard to

its relationship to promoting political stability in the territories. Western NGOs chiefly focus on interventions that they perceive are likely to promote dialogue, or that resolve immediate humanitarian issues. This perspective is logical; with millions of dollars in international aid going to the Palestinian territories, donors want to ensure that their money is being used to encourage peace and that it isn't going to groups designated as terrorist organizations.

Undoubtedly, a just political solution is the only way to bring long-term stability and growth to this region.

However, the results of this study, and much of the existing body of knowledge about this topic, suggests an additional, community-focused approach: since resiliency appears to play a role in quality of life of a population, an emphasis on policies that promote resiliency are indicated. Policies would include concentration on capacity building and inducing social capital, with initiatives such as increasing employment opportunities, focusing on sovereignty in terms of economic development, and programs that strengthen familial bonds. The literature has shown that low socioeconomic indicators, including work opportunities and living status, contribute significantly to quality of life and psychological health in general, particularly in conflict-affected populations (Roberts & Browne, 2011). If these basic needs are met, individuals are more likely to be resilient to fluctuations in circumstances that are politically motivated. A more mentally sound population is less likely to participate in violence and find solace in extremism, and more likely to work towards building a functional and open social system. A population whose basic needs are assured can focus more on personal development, such as education, employment, and building a stable family. Multinational organizations such as the UN can use this civilian empowerment model as part of their peacekeeping missions to promote good

governance, since their usual standard of working with state actors has historically led to corruption and population dependence on aid (Williams, 2013).

This study suggests that factors that traditionally induce resilience may be more influential on an individual's functioning than their tangible surroundings. Thus, mechanisms to reinforce these motivators in a positive direction are vital in shaping future behaviors and attitudes. For example, a shared ideology and narrative, which literature has shown are a significant factor in mediating resilience, can be both positive and negative in their roles. While they are important in solidifying a society, they can also be a dangerous way to dehumanize the perceived enemy as "the other." This perspective can lead some individuals to find solace in extremist viewpoints and actions, and can provide them with a justification for violence and terrorism. Some literature suggests that exposing individuals to the narrative of the other in order to support a more nuanced perspective of the conflict has been shown to be beneficial in Israeli and Palestinian children. Particularly in Palestinian children, it mitigated feelings of mistrust and hatred, and reduced willingness to recognize war as a legitimate outlet (Biton & Salomon, 2006). While the injustice weaved throughout the Palestinian narrative is an important component of their sense of *sumud*, and likely provides some of that intrinsic resilience, third parties can find ways to reframe this resilience as something to be found *within* Palestinian society and values, rather than perceiving it as just a trait that is dependent on demonization of or anger toward another entity. An intense focus on maintaining culture, building infrastructure (both physical and social), and providing outlets for ambitious youth can be the way Palestinian resilience is channeled as a positive, rather than sustained as merely a sense of victimhood or martyrdom.

This study indicates that war-affected civilian populations are not simply reactive actors to external stimuli outside of their control. There is a will to move forward into the future, often

unacknowledged by outsiders and not emphasized in international media. Even as the future for their nation is uncertain, the actual people within the society see a future for themselves. They are not entirely dependent on political stability for their own mental functioning. This is evident in Gazan children playing in makeshift playgrounds amidst rubble and students going to bombed schools with no roofs, and in West Bank residents dutifully waiting in checkpoints for hours every day to go to school or work. The separation barrier, which is an imposing symbol to Palestinians of their second-class status, is covered with graffiti, but rather than demonstrate urban decay or hate, there are carefully drawn doves, olive branches, and messages of peace. While, undoubtedly, the Palestinian's ability to succeed in attaining their goals would be much easier with a fundamental shift in the political climate, it is not accurate to look at these people as simply products of war, as lost causes, or as war-weary, embattled, helpless, and weak.

Surely, the literature has shown that these characteristics do manifest, particularly in the most vulnerable populations such as children, the elderly, refugees, or the disabled. But these groups are the most heavily susceptible in any context, even in a peaceful, high-income society. The vast majority of populations living in war are still functional, ambitious, and hopeful. Extremism and terrorism will always be a potential outcome of war or political instability. Particularly in the Palestinian context, there is a historic sense of injustice and an unparalleled nationalism that is unique among war-torn societies, where wars may have undefined purposes and transient enemies, as is seen in today's "war on terror." However, this study suggests that most Palestinians have reached a level of pragmatism that may be seen as surprising through a Western lens. They understand their circumstances, but refuse to submit to them. They have, over generations, developed a sense of resilience that is likely the factor that has held the society together and kept the population flourishing. Unlike devastated Afghanistan, with a literacy rate

of 28%, or even Syria, with a literacy rate of 80%, 95% of Palestinians are literate. This is not a society that has given up hope or will surrender to circumstance. The sheer fact that the Palestinians, not by any means a huge population, still exist despite the decades of war and expulsion, and in fact are growing, demonstrates that war is not the most defining factor of these people.

Study Strengths

The Palestinian context is a fascinating one on which to base research of all types; however, the literature suggests an overwhelming interest in understanding psychosocial outcomes of this population. The situation is so unique in so many ways, and its only consistent and predictable trait seems to be that it will get worse and continue to produce misery and waste money, energy, and potential. Thus, an understanding of the populations involved in this conflict seems vital in understanding the conflict itself, which is on its face political, but ultimately is about people and their motivations. This study seeks to add to the ongoing and progressing discussion about some of the people involved in this conflict in an effort to find ways to ease and prevent their suffering, as well as to understand the experience of living through it.

To the best knowledge of the researcher, and based on an extensive literature review, this study is the first to compare HRQoL, stress, and insecurity between Palestinians and a demographically similar population. This approach provides a significant, and previously missing, element to existing information regarding the most important factors that influence how people live in conflict. Further, the collection of multiple demographic variables from both settings gives a multifaceted and entirely unique viewpoint in which to understand how different people perceive different types of lives in different settings.

The sheer variety of collected independent variables, including age, gender, religion, citizenship, living environment, size of household, income, and education level, allows for a multitude of descriptive and comparative statistics. The large sample size and extremely high response rate provide a sizeable backdrop to interpret the resulting data. Furthermore, as predicted, the samples were extremely similarly matched in terms of ages, genders, and the other demographic variables. This makes it easy to target the country of the data collection (and thus the presence of conflict) as one of the primary differing variables between the samples.

While comparing the samples to each other was a primary motivation for the methodology and execution of this study, the collected data also provide information from two fascinating settings in their own right, and are worthy of this type of study and examination. Quality of life research, as well as research studying mental health indicators such as stress, has often focused on the Palestinian Territories, and with good reason. While the situation is stagnant on a macro scale, it is also incredibly dynamic on a micro scale. The important sticking points for any peace accord, specifically the status of Jerusalem, the right of refugee return, and solidifying borders, have remained unsettled for decades. But on the ground, the situation is constantly changing, sometimes for the better (ascension of the State of Palestine to the UN), but mostly for the worse (settlement expansion, terrorism, and ground wars in Gaza). Combined with the other studies on quality of life and other indicators in the Palestinian population at various other points in time, this study contributes yet another cross section of time with which to assess this population. Considering whether indicators are changing, or if their relationship to different demographic factors has shifted, are both effective ways to gauge the population based on politics and other events.

The other sample targeted for this study, the Jordanian population, is a country with a fascinating role in the puzzle of the modern Middle East. However, few studies have assessed the impact of shifting dynamics on the average Jordanian. While some quality of life research exists for specific populations, such as nurses or relatives of disabled individuals, Jordan is generally not a country where a significant amount of psychosocial research is performed. Jordan is noted for its geopolitical importance and is generally discussed in terms of politics, summits, and treaties. The Jordanian population is one that has as-of-yet been underrepresented in contemporary mental health research, particularly in terms of resilience and the indicators collected for this study. This study thus provides an important viewpoint of this nation that is seen as vital to interests in both the region and in the West. Seeing that the Jordanian population is clearly feeling heavily burdened by the stressors of the region must signal that an intervention is necessary to avoid widespread unrest and potential political instability in this key geopolitical player.

Study Limitations

This study, despite its effectiveness in several areas, was not without limitations. Several of these limitations may be seen not as weaknesses, but as conscious decisions on the part of the researcher. However, because they reduce the generalizability of the study, they should be addressed. The first such factor is the conflict selected for analysis. The features that make the Israeli-Palestinian conflict such a fascinating one to study are also those that make it the most unique and thus non-generalizable: its length and its complexity. Most conflict settings simply have not lasted nearly as long, and rarely do they also include a military occupation, a blockade, two disparate territories that are not connected (Gaza and the West Bank), occasional ground and

air assaults on one but not both of the territories, religious ideology, inconsistent international attention, and an overall tense region, in quite this specific of a mix. These are characteristics of this conflict that simply make it unlike any other conflict. However, the vast base of conflict/disaster literature suggests that despite the particular features, often the reactions of people are similar, particularly once broken down by certain demographics. Further, studying a conflict with so many complex interactions of debilitating factors can only be beneficial in attempting to understand conflicts that are less all-encompassing or obstructed.

While this study certainly cannot describe all types of people in all types of conflicts, it is also important to note that it cannot describe even all types of Palestinians in this conflict. There was no sample from the Gaza Strip, and although a sample of Palestinians with Israeli citizenship was well represented, a sample of Arabs from within Israel would have also likely held a unique perspective. Further, the sample consisted of young adults attending universities in fairly large metropolitan areas of both countries; this indicates certain common factors in the samples, such as individuals with the means and ability to attend college, individuals with families supportive enough to send them to college, and individuals that either live in the city or are able to travel to the city regularly. Responses would likely differ if young adults that were not attending college for various reasons such as lack of money or familial support, or those attending smaller colleges in more rural settings, were also included. These factors may have contributed to the failure to reject the null hypotheses.

The survey given was long and on paper, and some students did not complete the last few questions or pages of questions, probably due to lack of time or lack of continued interest. Electronic surveys were excluded from the study protocol because technological consistency in the classrooms could not be guaranteed. The survey used established instruments that could not

be shortened to retain validity and reliability. Thus, a certain amount of partially completed surveys is an acceptable limitation within these necessary constraints.

One of the most unexpected limitations of the study was the inability of the researcher to travel to collect the primary data as was originally anticipated. In the month prior to the scheduled data collection period, Operation Protective Edge unfolded in the Gaza Strip, and the West Bank was tense due to multiple killings, arrests, and other incidents. While some level of instability is always expected, the researcher was concerned that her Palestinian traveling documents might make it difficult to travel through the region to collect the data from the two countries. Thus, a trusted and well-educated family member performed the actual collection of the data. While the data collection process went as smoothly as could be expected under those circumstances, the researcher did not have the opportunity to present or explain the study to the participants (although the research assistant did) or make any of the on-the-spot decisions of the data collection process. Due to the nature of the survey instrument, it is unlikely that this produced any deviation in responses, however this departure from the original protocol should be noted.

Surveys are self-reporting and thus reflect the participant's mental state at that moment in time. No longitudinal data was collected as a part of this study, and the survey was only given once to each participant. Thus, natural distortions in some of the responses could be present based on a current state and not an overall representation of their status. However, this weakness is consistent in all similarly performed studies, and data could be collected at a later time period from a similar sample in order to compare the results.

At the time this study was conducted, the Middle East seemed to be at a tragic tipping point, with an air and ground assault on Gaza, a civil war in nearby Syria, and a religious war

waged by ISIS in Syria and Iraq. The notion of democracy is being toyed with in Egypt and Turkey, and the stability of neighboring nations is being questioned. These collective stressors could have heightened responses from some participants in the study, particularly within the Jordanian sample. However, although scores did not seem overly inflated in either direction, collecting this type of data even in times of exceptional stress provides an even more rich perspective of the outcomes in countries being affected by the circumstances in completely different ways. Jordan is under new types of stress on a seemingly annual basis, particularly with an influx of refugees from warring Syria, Iraq, and Palestine. Zaatari refugee camp, home to 85,000 Syrian refugees, would be Jordan's fifth-largest city. Jordan is receiving more than \$1 million in aid per day simply to help maintain their stability in the Middle East, as it is such an important partner with the West (Gavlak, 2014). This provides an important and distinctive perspective when discussing this type of research.

Future Research

This study, while adding to the existing literature about QoL and other health outcomes in conflict zones, illuminates multiple other avenues of study that should be pursued. Capturing HRQoL scores along with health status could be an important way in which to distinguish the extent to which individual circumstances may impact scores as opposed to overarching external circumstances, such as war. Collecting health records and other health data from future survey respondents would provide another opportunity to assess the precise impact of war on QoL measures and other indicators. Since this study was demographically homogenous, with a primarily young sample, including individuals of other age and socioeconomic groups could be beneficial, although this would add a multitude of other factors that could impact results.

Although this study captured the responses of over one hundred Palestinians with Israeli citizenship, future studies should attempt to focus more on this important, but under-studied, group. Partnering with Arab Israeli organizations, or campus groups at Israeli universities, could provide a fourth demographic group with which to base these comparisons. Are Israeli Arabs studying in the West Bank representative of the whole of the Israeli Arab population? Or are there distinctive characteristics in this group that make them entirely unique? Only a targeted assessment of Israel's Arab community could answer these questions. Conversely, because they were not the targets of this study, only 18 Palestinian refugees were assessed. Palestinian refugees traditionally have significantly lower socioeconomic status and ability to go to college, and thus the format of this study was not ideal for evaluating the responses of this group. Future studies could attempt more targeted efforts to capture the cross-section of Palestinian refugees who are also attending college, and more significant representation of this group would be an important way to assess the whole of the Palestinian community. The Jordanian sample in this study could also be more similar in terms of socioeconomic status to the comparison Palestinian sample, and more targeted sampling could achieve this.

This study was cross-sectional and captured data at one point in time. With appropriate resources, a longitudinal cohort study would be extremely revealing. The ability to view how HRQoL, stress, and insecurity scores move over time in response to local and regional developments would be useful in gauging the impact of external stimuli on individual indicators. Following the same sample for a significant time period would allow for a rich data set that could be overlaid with events on the ground. For example, it is likely that stress and insecurity would be highly variable depending on tensions in the region. Coupling this data with the

additional group of Arabs in Israel would allow researchers to understand how these events impact these diverse population groups differently.

Conclusion

In 1855, historic civil rights advocate Frederick Douglass said, “It is easier to build strong children than to repair broken men.” Although Douglass was speaking in the context of slavery and civil rights for African-Americans, this sentiment reverberates loudly today. Current conflicts such as the civil wars in Syria and South Sudan, the drug wars in Mexico and Central America, the war on terror in Afghanistan, Iraq, Yemen, and beyond, and the nearly 70-year-long Arab-Israeli conflict, are producing entire generations of what have been called “lost children”: children unable to go to school, to thrive physically, to have dreams for a future. What kinds of societies are these soon-to-be-adults going to build? What skills are we giving them, and what lessons are they learning about the world?

This study was conducted in an effort to assess the role of a war environment on several indicators: HRQoL, perceived stress, and insecurity. Much of the literature and popular perception would suggest that a war-affected population will be weak or vulnerable, that they will live in constant states of stress and insecurity, and that their quality of life in all aspects will be decreased. Instead, the results of this study ran counter to nearly all of these expectations. Not only was the conflict sample not more negatively affected than their counterparts not experiencing conflict, but also their scores, particularly in quality of life, were significantly higher. Even when citizenship status, and thus access to resources, was assessed, the West Bank participants with Palestinian citizenship still reported significantly higher HRQoL than, and nearly identical scores for stress and insecurity as, the Jordanian sample that is relatively

untouched by occupation, war, and violence. Is it the intergenerational *sumud* of the Palestinian people? Is it the sudden flux in Jordanian society? It is most likely a combination of both. And as Jordan comes to terms with the challenges of modern globalization and its role in the world, circumstances will normalize for its population.

However, what of this concept of resilience: *sumud*? Has applying Western mental health assumptions, even by well-meaning humanitarians, led to a functionally incorrect way of viewing victims of long-term trauma, and more specifically, the Palestinians? Is the Palestinian instinct to reframe their suffering as not a reason to give up, but a reason to keep going, unique to the Palestinian context? In earlier sections of this paper, I make several arguments that distinguish the Palestinian conflict from the many other contemporary and historical conflicts studied in the trauma and quality of life literature. Another aspect that is unique is this concept of *sumud*. In the review of literature for this paper, I did not come across this concept as deeply ingrained in other cultures and war settings. It appeared that the intense nationalism of Palestinians provided a well of resilience from which to draw; they know that their struggles are shared by their families, friends, neighbors, and by millions of Palestinians before them. They know the names of those that have died for the Palestinian cause and those who have written books about Palestinian history. Thus, they do not feel alone in their suffering, and they do not feel their suffering is without purpose.

This study lends a new and significant perspective to the conflict and quality of life literature. These results suggest that current thinking about trauma and resilience may be outdated, or may require a more complex sense of cultural competence. The way people react to trauma is clearly related to multiple other factors outside of the negative stimulus, such as individual circumstances and ideology, that impact resilience. We are just beginning to

understand what the concept of resilience is as it relates to conflict-affected populations and how it helps individuals and societies cope with difficult circumstances. Further examination of the Palestinian people and other societies affected by conflict can help policymakers in NGOs and governments tailor interventions and initiatives that will give these populations hope, purpose, and distance them from the violence that has become the backdrop of their lives.

APPENDIX A: SURVEY INSTRUMENT

Demographic Information

1. What is your age? _____

2. What is your gender?
 1. Male
 2. Female

3. What is your annual household income (meaning the income of all of the working individuals in the house you live in)?
 1. Less than \$1000
 2. Between \$1000-\$3000
 3. Between \$3000-\$5000
 4. Between \$5000-\$10000
 5. More than \$10000

4. What is your citizenship status? (Select all that apply)
 1. Citizen of the State of Palestine
 2. Citizen of the Kingdom of Jordan
 3. Citizen of the State of Israel

4. Palestinian refugee
 5. Citizen of the United States
 6. Citizen of another nation (please specify): _____
-
5. How many people live in your household (including yourself)?
 1. 1
 2. 2-4
 3. 5-7
 4. 8-10
 5. 11+
-
6. What is your religion?
 1. Islam
 2. Christianity
 3. Judaism
 4. Other (please specify): _____
-
7. Which best describes the place you live in?
 1. Urban (an area that is mostly non-agricultural)
 2. Rural (an area that is mostly countryside or agricultural)

1. In general, would you say your health is:

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor

2. Compared to one year ago, how would you rate your health in general now?

1. Much better than one year ago
2. Somewhat better now than one year ago
3. About the same
4. Somewhat worse now than one year ago
5. Much worse than one year ago

The following items are about activities you might do during a typically day. Does your health now limit you in these activities? If so, how much?

3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

5. Lifting or carrying groceries

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

6. Climbing several flights of stairs

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

7. Climbing one flight of stairs

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

8. Bending, kneeling, or stooping

1. Yes, limited a lot

2. Yes, limited a lot
3. No, not limited at all

9. Walking more than a mile

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

10. Walking several blocks

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

11. Walking one block

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

12. Bathing or dressing yourself

1. Yes, limited a lot
2. Yes, limited a lot
3. No, not limited at all

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

13. Cut down the amount of time you spent on work or other activities

1. Yes
2. No

14. Accomplished less than you would like

1. Yes
2. No

15. Were limited in the kind of work or other activities

1. Yes
2. No

16. Had difficulty performing the work or other activities (for example, it took extra effort)

1. Yes
2. No

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

17. Cut down the amount of time you spent on work or other activities

1. Yes
2. No

18. Accomplished less than you would like

1. Yes
2. No

19. Didn't do work or other activities as carefully as usual

1. Yes
2. No

20. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

1. Not at all
2. Slightly
3. Moderately
4. Quite a bit
5. Extremely

21. How much bodily pain have you had during the past 4 weeks?

1. None
2. Very mild

3. Mild
4. Moderate
5. Severe
6. Very severe

22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

1. Not at all
2. A little bit
3. Moderately
4. Quite a bit
5. Extremely

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

23. How much of the time during the past 4 weeks did you feel full of pep?

1. All of the time
2. Most of the time
3. A good bit of the time
4. Some of the time
5. A little of the time

6. None of the time

24. How much of the time during the past 4 weeks have you been a very nervous person?

1. All of the time

2. Most of the time

3. A good bit of the time

4. Some of the time

5. A little of the time

6. None of the time

25. How much of the time during the past 4 weeks have you felt so down in the dumps that nothing could cheer you up?

1. All of the time

2. Most of the time

3. A good bit of the time

4. Some of the time

5. A little of the time

6. None of the time

26. How much of the time during the past 4 weeks have you felt calm and peaceful?

1. All of the time

2. Most of the time

3. A good bit of the time

4. Some of the time
5. A little of the time
6. None of the time

27. How much of the time during the past 4 weeks have you have a lot of energy?

1. All of the time
2. Most of the time
3. A good bit of the time
4. Some of the time
5. A little of the time
6. None of the time

28. How much of the time during the past 4 weeks have you felt downhearted and blue?

1. All of the time
2. Most of the time
3. A good bit of the time
4. Some of the time
5. A little of the time
6. None of the time

29. How much of the time during the past 4 weeks did you feel worn out?

1. All of the time
2. Most of the time

3. A good bit of the time
4. Some of the time
5. A little of the time
6. None of the time

30. How much of the time during the past 4 weeks have you been a happy person?

1. All of the time
2. Most of the time
3. A good bit of the time
4. Some of the time
5. A little of the time
6. None of the time

31. How much of the time during the past 4 weeks did you feel tired?

1. All of the time
2. Most of the time
3. A good bit of the time
4. Some of the time
5. A little of the time
6. None of the time

32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

How TRUE or FALSE is each of the following statements for you.

33. I seem to get sick a little easier than other people

1. Definitely true
2. Mostly true
3. Don't know
4. Mostly false
5. Definitely false

34. I am as healthy as anybody I know

1. Definitely true
2. Mostly true
3. Don't know
4. Mostly false
5. Definitely false

35. I expect my health to get worse

1. Definitely true
2. Mostly true
3. Don't know
4. Mostly false
5. Definitely false

36. My health is excellent

1. Definitely true
2. Mostly true
3. Don't know
4. Mostly false
5. Definitely false

PSS-4

1. In the last month, how often have you felt that you were unable to control the important things in your life?

1. Never
2. Almost never
3. Sometimes
4. Fairly often
5. Very often

2. In the last month, how often have you felt confident about your ability to handle your personal problems?

1. Never
2. Almost never
3. Sometimes
4. Fairly often
5. Very often

3. In the last month, how often have you felt that things were going your way?

1. Never
2. Almost never
3. Sometimes
4. Fairly often
5. Very often

4. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

1. Never
2. Almost never
3. Sometimes
4. Fairly often
5. Very often

Human Insecurity Scale (1 being the lowest, 5 being the highest- please circle)

1. To what extent do you fear for yourself in your daily life?

1 2 3 4 5

2. To what extent do you fear for your family in your daily life?

1 2 3 4 5

3. To what extent do you feel worry/fear not being able to provide your family with daily life necessities?

1 2 3 4 5

4. To what extent do you worry/fear about losing your source of income or your family's source of income?

1 2 3 4 5

5. To what extent do you worry/fear losing your home?

1 2 3 4 5

6. To what extent do you feel worry/fear from displacement or uprooting?

1 2 3 4 5

7. To what extent do you worry/fear for your future and your family's future?

1 2 3 4 5

8. To what extent do you feel fear on your safety?

1 2 3 4 5

9. To what extent do you feel fear on the safety of your family?

1 2 3 4 5

10. To what extent does your family feel fear on your safety?

1 2 3 4 5

APPENDIX B: IRB APPROVAL



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Yara Asi**

Date: **May 08, 2014**

Dear Researcher:

On 5/8/2014, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination
Project Title: The Impact of Conflict on Health-Related Quality of Life: A Study in the Occupied Palestinian Territories
Investigator: Yara Asi
IRB Number: SBE-14-10190
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

IRB Coordinator



University of Central Florida Institutional Review Board
 Office of Research & Commercialization
 12201 Research Parkway, Suite 501
 Orlando, Florida 32826-3246
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www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: UCF Institutional Review Board #1
 FWA00000351, IRB00001138

To: Yara Asi

Date: August 06, 2014

Dear Researcher:

On 8/6/2014, the IRB approved the following minor modification to human participant research that is exempt from regulation:

Type of Review: Exempt Determination
Modification Type: Due to current situation in the region, the PI has postponed her trip. Instead of PI distributing the anonymous surveys, a trusted family member who is fluent in Arabic and English will distribute and collect the surveys and send them to the PI for analysis. A revised protocol has been uploaded in iRIS. No other changes are being made to the study.
Project Title: The Impact of Conflict on Health-Related Quality of Life: A Study in the Occupied Palestinian Territories
Investigator: Yara Asi
IRB Number: SBE-14-10190
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/06/2014 10:16:00 AM EDT

IRB Coordinator

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