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## Walden University

College of Social and Behavioral Sciences

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#### Aaron Richman

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Walden University

2017

#### **Abstract**

Patterns Within Nine Preattack Phases That Emerged in Israel Suicide Bombing Cases

by

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MBA, University of Leicester, 1999

BA, Temple University, 1991

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Public Policy and Administration

Walden University

November 2017

#### **Abstract**

From 2000 to 2013, Israel had the second highest number of deaths from suicide attacks and was on the list of countries that may experience increases in terrorism due to ongoing conflicts. Suicide bombings present highly complex situations for counterterrorism and counterinsurgency professionals. Using Freeman, Tucker, and Merton's framework of 9 preattack phases as the primary theoretical construct, the purpose of this multiple case study was to explore specific patterns that consistently emerged in the adversary planning process for 6 successful or failed suicide bombing cases in Israel. Secondary, archival data were acquired through a data use agreement with a private security organization in Israel and a maximum variation sampling procedure was used to identify cases. These data were subjected to Straus and Corbin's open and axial coding procedures. Coded data were analyzed using Merriam's cross case analysis procedure. Findings indicated that although the nine preattack phases emerged in both the successful and unsuccessful attacks, they were more consistently present in the successful bombing cases. For the successful attacks, general planning, financing, and operational preparation received the most occurrences. The implications for positive social change are directed at counterterrorist decision makers and operators as focusing on the early planning phases of a terrorist attack will help them to better identify essential opportunities to prevent suicide attacks from occurring.

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#### Dedication

This dissertation is dedicated to my wife and best friend, Ety. She is a constant inspiration and has enabled me to make such long journeys and adventures happen. Every adventure has many hills, peaks, valleys, and bumps along the way. Ety has given me the support, guidance, motivation, and common sense to break through the obstacles. When we decided that I would take this journey to obtain my doctoral degree, she never hesitated in her support and desire for me to accomplish such a major project. Ety, I thank you for your understanding, patience, and overall support as I completed this dissertation and for every adventure we have taken and continue to take together.

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#### Chapter 1: Introduction to the Study

Suicide terrorism is the most aggressive form of terrorism in which attackers' or adversaries' coercive actions may anger both the targeted community members as well as other individuals (Pape, 2008). In this study, adversaries are individuals or organizational members who use suicide terrorism tactics against civilians or government officials (Martin, 2003). Pape (2008) reported that what distinguishes suicide terrorists from other terrorists is that the attackers do not expect to survive their mission as they often use a method of attack that requires them to die in order to succeed. Pape related that suicide attackers may use methods such as car bombs, suicide vests, or flying airplanes into buildings; for example, the September 11, 2001 terrorist attacks (9/11), where 2,997 people died as a direct result of al-Qa'ida terrorist attacks (Miller & Smarick, 2011, para. 2).

Like the United States, the threat of terrorist attacks is a major national security risk for many countries, such as Israel, Palestine, Syria, Iraq, Lebanon, Jordon, and Turkey (Institute for Economics and Peace [IEP], 2014). In Israel, since September 3, 2015, 40 people have been killed in terrorist attacks and 511 people, including four Palestinians, have been injured (Israel Ministry of Foreign Affairs, 2016, para. 2). The Israel Ministry of Foreign Affairs (2016) reported that there have been 155 stabbing attacks, including 76 attempted attacks, 96 shootings, 45 vehicular ramming attacks, and one bus bombing (para. 2). Hassan (2009) shared that the main motive for many suicide bombing attacks in Israel is revenge for acts committed by Israelis. The IEP (2014)

identified Israel, along with 12 other countries, as being at risk for increased terrorist activity.

Using Medby and Glenn's (2002) intelligence preparation of the battlefield (IPB) analytic framework, Landree et al.'s (2007) modified intelligence preparation of the battlefield (ModIPB) framework, and Freeman, Tucker, and Merten's (2010) nine preattack phases, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. The implications for positive social change stemming from this multiple case study are directed at counterterrorist decision makers and operators as focusing on the early planning phases of a terrorist attack will help them to better identify essential opportunities to prevent suicide attacks from occurring and better mitigate the effects of suicide attacks. This knowledge and action will save the lives of citizens, first responders, and law enforcement officials. In Chapter 1, I include the background of the study, problem statement, purpose of the study, research question, conceptual framework, nature of the study, definition of terms, assumptions, scope and delimitations, limitations, significance of the study, and a summary.

### **Background of the Study**

Two main purposes of terrorism are to gain supporters and to coerce opponents (Pape, 2008). Pape (2008) reported that terrorists often seek both outcomes as they want to change the target state's policies while obtaining support and recruits for their cause.

The author discussed three forms of terrorism, which are as follows: (a) demonstrative, (b) destructive, and (c) suicide terrorism. Pape described demonstrative terrorism as political with the aim of gaining publicity to recruit more activists, gain attention to grievances from others on the other side, and to gain attention from third parties who might place pressure on the other side. The author noted that destructive terrorism is more aggressive than demonstrative terrorism as the goal is to coerce opponents with injury or death threats and obtain support for the cause. Pape noted that suicide terrorism is the most aggressive form of terrorism as coercion is pursued that angers both target community members and other individuals as well. With suicide terrorism, Pape shared that the attackers do not expect to survive and often employ lethal methods of attack. The author reported that suicide terrorism has occurred in numerous attacks, such as when the Palestinians invade Israeli settlements on the West Bank with guns and grenades with the goal of killing residents and few of these suicide attackers escape alive.

In comparison to other types of terror attacks, suicide attacks are fewer, but there is a higher casualty rate (Wigle, 2010). Dolnik (2007) related that to achieve their goal, terrorists study potential targets in order to understand community vulnerabilities and use exploitable opportunities for attacks. Syed (2010) reported that Israel, Palestine, Iraq, Afghanistan, Sri Lanka, and Pakistan are regions that have frequent suicide attacks. Sterman and Gross (2016) reported that compared to 2014, the number of Israelis injured by terrorism increased 284% in 2015 (para. 1). The authors noted this increase despite a slight decrease in the number of terrorist attacks, from 1,793 in 2014 to 1,719 terrorist

attacks in 2015 (para. 5). Sterman and Gross noted that 28 people were killed in terrorist attacks in 2015 compared to 20 fatalities in 2014 (para. 3). The authors related that the majority of the 2015 fatalities occurred in attacks in Southern West Bank and Jerusalem. Sterman and Gross noted that people were also killed in Beersheba, Tel Aviv, and Northern West Bank.

Recent attacks against Israelis are due to incitement of radical Islamist and terrorists who have called on Palestinian youths to murder Jews (Israel Ministry of Foreign Affairs, 2016). Israel Ministry of Foreign Affairs (2016) noted that terrorist attacks have been concentrated in greater Jerusalem, but attacks have spread to other locations in Israel, including Kiryat Gat, Tel Aviv, Afula, Gan Shmuel, and Raanana. In addition, the Israel Ministry of Foreign Affairs related that the attacks have been carried out by young lone wolf terrorists who are mainly from East Jerusalem, while some are from Judea and Samaria. Attacks have also been carried out by Israeli Arabs, Palestinians who were in Israel illegally, women, and children. The Israel Ministry of Foreign Affairs reported that suicide attackers were mostly motivated by the lies that were spread by the Palestinian media that Israel threatened Al-Aqsa mosque, as well as youths being frustrated, desperate, and angry.

Researchers have focused on resilience, acute stress, and psychological responses in citizen's after suicide attacks in Israel (Amital, Amital, Shohat, Soffer, & Bar-Dayan, 2012; Shalev, Tuval, Fenkiel-Fishman, Hadar, & Eth, 2006). While a few researchers have focused on patterns in preattack terrorist activities using a range of global terrorist

events (Fox, 2014; Freeman et al., 2010), there is a gap in the literature that specifically explores specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each successful or failed suicide bombing cases in Israel. In this study, I addressed this gap by adding new knowledge to the field. This multiple case study was needed as understanding the general pattern of preparation before a suicide attack is useful in preventing subsequent attacks.

#### **Problem Statement**

Terrorism is a major national security problem for many countries (IEP, 2014). The IEP (2014) noted that most terrorist-related deaths (66%) in 2013 were claimed by four terrorist organizations, which are Islamic State (ISIS), Boko Haram, Taliban, and al-Qa'ida (p. 2). In asymmetric warfare, where the military power differs significantly between two rivals, suicide bombings are often used as the smaller weaker group attacks the stronger one (Saxton, 2016). The IEP reported that from 2000 to 2003, most suicide attacks occurred in Israel, the West Bank, and Gaza (p. 34). The IEP found that 13 countries were at risk for an increase in terrorism, which includes Israel. In Organization for Economic Cooperation and Development (OECD) countries, from 2000 to 2013, the United States had the highest number of deaths from suicide attacks with 3,042, with 2,996 deaths attributed to 9/11 (IEP, 2014, p. 35). The IEP found that Israel had the second highest number of deaths with 841 or 17% of all fatalities (p. 35). In 2013, Israel had 24 fatalities from terrorist attacks (p. 35). Israel was also on the list of countries that may experience increases in terrorism due to ongoing conflicts.

Suicide bombings present highly complex situations for counterterrorism and COIN professionals (Butterworth, Sholey, & Jenkins, 2012; Freeman et al., 2010; Greenhill & Staniland, 2007; IEP, 2014; Kennedy, 2006; Landree et al., 2007; McCaul et al., 2014; Medby & Glenn, 2002; Paul & Landree, 2008; Shaked, 2016; White, 2011). One limitation is that studies have been conducted that examined global terrorist attacks and mass school shootings (Freeman et al., 2010) and which of Freeman et al.'s (2010) nine phases to focus operational resources on (Fox, 2014). However, research is lacking on the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each successful or failed suicide bombing cases in Israel. By focusing on the early planning phases of a terrorist attack, decision makers and counterterrorist operators (CTOs) are better able to identify essential opportunities to prevent suicide attacks from occurring (Fox, 2014). Paul and Landree (2008) related that the more individuals involved in counterterrorism strategies are able to understand adversary strategies, the better equipped they are to identify risks and execute defensive strategies. The authors argued that any planning process involved in an attack should be studied, which provides unique insights into various phases of the attack such as selecting a target, selecting the mode of attack, choosing specific terrorist operatives, and developing an operational plan. In addition, numerous constraints are involved in any decision to focus counterterrorism and intelligence collection efforts such as budgetary constraints, infrastructure, and capability (Fox, 2014). Thus, findings from

this study may help CTOs narrow the field of options while filling the operational need to detect terrorist attacks before they occur.

A second limitation is that past studies have not explored suicide attacks in Israel through the conceptual lens of Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s (2010) nine preattack phases. Using these conceptual frameworks, a multiple case study was needed that explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each adversary success or failure in Israel suicide bombing cases.

#### **Purpose of the Study**

The purpose of this multiple case study was to explore specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. A multiple case study research design allows the researcher to explore differences within and between cases, and the goal is to replicate findings across cases (Baxter & Jack, 2008). Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s nine preattack phases were used as the conceptual frameworks of this study. Data were collected using a researcher-created terrorist activity data collection worksheet, a researcher-created site data collection worksheet, and a researcher-created questionnaire into suicide bombing events. Data were managed with NVivo.

#### **Research Question**

In this multiple case study, I addressed one central research question: What are the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel?

#### **Conceptual Framework**

The conceptual framework is used to show how the researcher's study fits into what is already known or the relationship to existing theory and research (Maxwell, 2005). In addition, the conceptual framework shows how the study contributes to the field; specifically, the researcher's intellectual goals (Maxwell, 2005). Rockinson-Szapkiw and Knight (2012) related that the conceptual framework informs the research questions and methodology and helps the researcher justify his or her research problem; thus, showing why the study is important. Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s (2010) nine preattack phases served as the conceptual frameworks of this study. A brief overview of the frameworks is provided in this section with a more detailed explanation provided in Chapter 2. I organized this section in the following subsections: intelligence preparation of the battlefield, modified intelligence preparation of the battlefield, and nine preattack phases.

#### **Intelligence Preparation of the Battlefield**

IPB is an analytic framework that the United States military uses to collect, organize, and process intelligence with respect to terror assaults in rural and urban areas of operation (Medby & Glenn, 2002). Medby and Glenn (2002) reported that IPB gives commanders and their staff information on the conditions within their operational area, such as areas of operation, interests, and battlespace that could affect the outcome of their mission. The researchers noted that identified conditions include relevant characteristics of the weather, terrain, population groups and subgroups, media, infrastructure, and threats. In addition, Medby and Glenn related that IPB provides a method of collecting information to describe and depict how each relevant characteristic influence the friendly unit, enemy unit, and other groups in the operational area. Hence, commanders use IPB to make timely and accurate decisions. The authors noted that IPB is an ongoing cyclical process that involves four steps, which are as follows: (a) define the battlefield area, (b) describe the battlefield's effects, (c) evaluate the threat, and (d) develop enemy courses of action (p. 13). I discuss these four steps in further detail in Chapter 2.

#### **Modified Intelligence Preparation of the Battlefield**

The ModIPB basic framework is derived from the U.S. Army IPB (Landree et al., 2007). Landree et al. (2007) reported that due to the abundance of information in the public domain, being able to identify all the information that are essential to a potential target and evaluating its possible value to terrorist planners is overwhelming. Therefore, Landree et al. created the ModIPB to define the kinds of information most likely to be

useful in planning and carry out attacks on certain targets. In the ModIPB, Landree et al. identified four main categories of information where all possible relevant information requirements are grouped: (a) approach avenues and ease of access (b) target features, (c) security, and (d) threat analysis in relation to terrorist operations (p. 19). The researchers noted that the first two categories pertain to IPB concerns with battlefield environment and effects, which are the first two IPB steps. The third category is drawn from the third IPB step, evaluate the threat. The fourth category is based on the threat evaluation and the development of the enemy COAs, which are the third and fourth IPB steps. I discuss these four categories in further detail in Chapter 2.

#### **Nine Preattack Phases**

Before a terrorist attack, individuals who are involved join a terrorist group; get training; plan the attack; obtain finances, weapons, and other materials; and prepare or rehearse for the final attack (Freeman et al., 2010). To incorporate these activities,

Freeman et al. (2010) created nine different phases. Freeman et al. shared that each of the phases was created to be distinct as possible from the others; however, they recognized that some of the phases may overlap or that it may be challenging to differentiate when actual cases are coded. Freeman et al. nine preattack phases are as follows: (a) networking and indoctrination, (b) terrorist training, (c), general planning, (d) recruitment, (e) financing, (f) operational planning, (g) weapons procurement, (h) logistical preparation, and (i) operational preparation (p. 77). I discuss these nine preattack phases in further detail in Chapter 2.

#### **Nature of the Study**

I used a multiple case study research design because it enabled me to delve into the topic and explore specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. I used a combination or mixed purposeful sampling, which included maximum variation sampling and purposeful random sampling. Patton (2001) related that using more than one sampling strategy meets multiple interests and needs. Using both maximum variation sampling and purposeful random sampling, the six cases were chosen based on the study's selection criteria. The cases had as much variation as possible, such as the location, size of the attack, and successful and failed attacks.

I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). Then using purposeful random sampling, I selected three successful and three failed suicide attack cases from the cases that met the study's selection criteria. The researcher-created terrorist activity data collection worksheet, which was based on Freeman et al.'s (2010) nine preattack phases, was used to collect archival data from the private intelligence company's database in Israel on the six cases (see Appendix B). I used a researcher-created site data collection worksheet to collect data at each site of the three successful and three failed suicide bombing attack locations (see Appendix C). I used a researcher-

created questionnaire into suicide bombing events to collect open source information or public data that is written or on the Internet about the six cases (see Appendix D).

Data were managed with NVivo. Coding categories that were used for the central research question are Freeman et al. (2010) nine preattack phases. Data analysis for this case study were conducted at two levels. The first stage was a within-case analysis or single-case analysis in which each case was treated as a comprehensive case (see Merriam, 2009, p. 204). For this study, each successful and each failed suicide bombing attack case were analyzed separately. Level 1 analysis of the six cases included coding and categorization of all data from the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researchercreated questionnaire into suicide bombing events. The second level of data analysis involved a cross-case analysis. Yin (2009, 2014) and Merriam (2009) believed the second level of data analysis is dependent on theory development or the development of theoretical propositions that helps to focus on certain data and ignore other data. Coded and categorized data were examined across all sources of data for the three successful suicide bombing attack cases and the three failed suicide bombing attack cases to determine themes and discrepancies. Therefore, the three successful suicide bombing attack cases were analyzed using cross-case analysis. Then the three failed suicide bombing attack cases were analyzed using cross-case analysis. I conducted the study in accordance with Walden University's Institutional Review Board (IRB) guidelines. I discuss the nature of the study in further detail in Chapter 3.

#### **Definition of Terms**

Adversary: Individuals or organizational members who use suicide terrorism tactics against civilians or government officials (Martin, 2003).

Adversary failure: In this study, adversary failure or failed attacks is when the suicide attacker was not killed, no civilians were killed (Freeman et al., 2010), or the suicide attacker was killed before any civilians could be killed.

Adversary success: In this study, adversary success or successful attacks includes the death of the suicide attacker along with the death of at least one civilian victim (Freeman et al., 2010).

Intelligence preparation of the battlefield (IPB): "IPB is an analytic process used to organize and analyze information on terrain, weather, and the threat within a unit's area of operations and associated area of interest" (Medby & Glenn, 2002, p. xiv).

Command members and intelligence staff use the IPB four-step approach to predict how an adversary will act within a certain area of operations (AO).

Lone wolf terrorism: Terrorist attacks that are carried out by individuals who operate alone, who are not affiliated with an organized terrorist group or network, and whose methods are created and directed by the individual without any direct outside command or hierarchy (Spaaij, 2010).

Modified intelligence preparation of the battlefield (ModIPB): The ModIPB is derived from the IPB and is a way to define the kinds of information most likely to be useful in planning and carry out attacks on certain targets (Landree et al., 2007).

Nine preattack phases: Freeman et al. (2010) created the nine preattack phases to depict the phases that occur before a terrorist attack. Freeman et al. nine preattack phases are (a) networking and indoctrination, (b) terrorist training, (c), general planning, (d) recruitment, (e) financing, (f) operational planning, (g) weapons procurement, (h) logistical preparation, and (i) operational preparation.

Suicide attack: The aim is "to physically destroy an initial target, its primary use is typically as a weapon of psychological warfare intended to affect a larger public audience" (Atran, 2003, p. 1534).

Suicide terrorism: This is "the targeted use of self-destructing humans against noncombatant-typically civilian populations to effect political change" (Atran, 2003, p. 1534).

Target selection: Target selection and reconnaissance is the phase where the teams assigned by the adversary will be dispatched to the field to choose and learn about the target (Drake, 1998). This is a phase in which the adversary is vulnerable to identification and being stopped by counterterrorism experts in their plot to attack (Drake, 1998).

Terrorism: This is defined as "a violent action, or threat of violent action, aimed at intimidating and coercing a government or sections of the public, typically for political, religious or ideological ends" (Alrajeh & Gill, 2015, p. 2).

*Terrorist*: An individual who seeks to destroy, incapacitate, or exploit critical infrastructure and key resources within a country in order to threaten national security,

cause mass casualties, weaken the economy, and damage public morale and confidence in the national economic and political institutions (White House, 2003).

#### **Assumptions**

Assumptions made for this study were the following:

- The researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events were appropriate to explore specific patterns within each of Freeman et al.'s nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel.
- The adversary was targeting only civilians within the target site and not the property.
- Within the case studies that were chosen based on the selection criteria, there
   were no high-profile targets within the civilian population.
- While the findings cannot be statistically generalized, the findings may be analytically generalized (Yin, 2010). This is discussed further in the limitations section.
- The results of the study will lead to positive social change as understanding
  the general pattern of preparation of suicide attackers before a suicide attack is
  useful in preventing future attacks.

#### **Scope and Delimitations**

The scope of this multiple case study included specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Only suicide attack cases that met the selection criteria were included in this study. Therefore, using both maximum variation sampling and purposeful random sampling, the six cases met the following selection criteria. One criterion was successful and failed suicide attacks that occurred from 2000 to 2010 in Israel. The criteria for successful attacks included the death of the suicide attacker along with the death of at least one civilian victim. The criteria for failed attacks were that the suicide attacker was not killed, no civilians were killed, or the suicide attacker was killed before any civilians could be killed. The attack site for each of the case studies were a soft target, such as in urban settings and civilian population. Soft targets can include commercial and private sectors as well as other targets such as areas or events where the public attends, which are under minimal security, such as schools and open public marketplaces. Soft targets exclude military-related settings and bases, convoys, or checkpoints. The cases chosen had sufficient data available so that I was able to gather data on Freeman et al. (2010) nine phases. The cases had as much variation as possible, such as the location, size of the attack, and successful and failed attacks.

#### Limitations

Factors that I considered in relation to the trustworthiness that arose from the execution of this multiple case study include the type of study, the chosen case studies, types of data sources, assumptions, and analysis of the results. There were several limitations of this study. Even though I used different kinds of cases, one possible limitation was generalizing the results since a maximum variation sampling and purposeful random sampling of only six Israel suicide bombing cases were used and the results of the study were limited to suicide attacks cases in Israel. Therefore, the results of the study may not be generalizable to other forms of terrorist attacks or to terrorist attacks in other countries as the majority of the cases were targeted towards locations in and around Jerusalem. Yin (2012) related that a single or small set of cases cannot be statistically generalized as that is not the aim of such studies. Instead, Yin noted that case studies tend to generalize to other situations based on the basis of analytic claims. Yin discussed a conceptual claim where researchers show how the findings from their study have informed the relationship among a particular set of concepts, theoretical constructs, or sequence of events. Yin related that the second step pertains to researchers applying the same theoretical propositions to implicate other situations outside the completed case study where similar concepts, constructs, or sequences might be relevant. Hence, although the findings from this multiple case study cannot be statistically generalized, they could have implications for other situations based on analytical claims.

A second possible limitation was issues of missing or incomplete data on the suicide bombing cases. However, this possible limitation was addressed by only including cases that had sufficient data available from multiple sources so that I was able to gather data on Freeman et al. (2010) nine phases. A third limitation pertained to bias in the selection of the suicide bombing cases. I am the chief executive officer (CEO) of the private intelligence company in Israel where the case study data were obtained. I addressed this limitation by obtaining the community partner's cooperation and data use agreement. I used purposeful random sampling in selecting the three successful and three failed suicide attacks. I also used specific strategies such as reflexivity where I revealed any experiences, biases, and values pertaining to the adversary planning process for each adversary success or failure in the Israel suicide bombing cases.

A fourth limitation was the difference in timeframe for successful suicide attacks and unsuccessful suicide attacks. As noted in Chapter 4, the successful attacks occurred in 2001 and 2002, whereas the unsuccessful attacks occurred in 2005 and 2006. The differences in years might be attributed to counterterrorist decision makers and operators having a better understanding of the nine preattack phases; thus, improving their counterterrorism strategies. In additions, the timeframe differences between the successful and unsuccessful attacks might also be attributed to environmental changes, such as suicide attacks originating from the Gaza Strip or other Palestinian territories, but a barrier or wall was built beginning in 2002 at the height of the second intifada, when major rioting and civil unrest took place from 2000 to 2006 (Butterworth et al., 2012;

Zonszein, 2014). Zonszein (2014) reported that Prime Minister Ariel Sharon ordered it as a measure to protect Israelis from Palestinian suicide bombers. Thus, future research could focus on factors that may have affected the behavior of terrorists in the intervening years that may explain the differences found in the successful versus unsuccessful cases.

A fifth limitation was related to the assumption that the adversary was targeting only civilians and not the property. As such, the results only focused on the casualties and did not discuss damages to property. Hence, future research could focus on the aftermath of terror attacks to gain a better understanding of how to prepare against serious damages.

#### Significance of the Study

The biggest threat to peace in Israel and other countries is terrorism by entities such as ISIS, Boko Haram, Hezbollah, Taliban, and al-Qa'ida (Fox, 2014; IEP, 2014). Fox (2014) emphasized that the detection of terrorist attacks before they occur is critical, but difficult when efforts are unfocused and misaligned. Determining the general timeframe in which each preattack phases occur will provide a valuable warning to intelligence analysts (Freeman et al., 2010). Freeman et al. (2010) argued that findings could also assist counterterrorism decision makers in creating policies to arrest those suspected of plotting an attack as soon as their activity is noticed.

The implications for positive social change stemming from this study are directed at counterterrorist decision makers and operators as focusing on the early planning phases of a terrorist attack will help them to better identify essential opportunities to prevent suicide attacks from occurring and better mitigate the effects of suicide attacks. This

knowledge and action will save the lives of citizens, first responders, and law enforcement officials. Findings from this research study added further knowledge to the public policy and administration literature on patterns within each of Freeman et al.'s (2010) nine preattack phases prior to suicide attacks. Along with the public policy and administration field, a wide array of other fields might be interested in the study's findings, to include the fields of criminal justice, public safety, and emergency management. The findings from the study are also applicable to many public and private agencies and organizations to include Israel's Homeland Security; federal, state, and local law enforcement agencies; and intelligence centers.

#### Summary

In this multiple case study, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Data were collected using a researcher-created terrorist activity data collection worksheet, a researcher-created site data collection worksheet, and a researcher-created questionnaire into suicide bombing events. Data analysis for this multiple case study were conducted at two levels: (a) single-case or within-case analysis and (b) cross-case analysis. Findings from this study added new knowledge to the field and increased further understanding of the general pattern of preparation for suicide attackers before the attacks take place.

In Chapter 1, I included the background of the study, problem statement, purpose of the study, research question, conceptual framework, nature of the study, definition of

terms, assumptions, scope and delimitations, limitations, significance of the study, and a summary. In Chapter 2, I include the introduction, literature search strategy, conceptual framework, background of terrorist attacks, suicide attackers, suicide attack, lone wolf suicide attacks, lessons learned from terrorist attacks, counterterrorism operations and methodologies, and a summary and conclusions. In Chapter 3, I include the introduction, research design and rationale, role of the researcher, methodology, issues of trustworthiness, and a summary. In Chapter 4, I include the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and a summary. In Chapter 5, I include the interpretation of findings, limitations of the study, recommendations, implications, and a conclusion.

#### Chapter 2: Literature Review

The purpose of this multiple case study was to explore specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Terrorism is a rational tactic that is utilized by individuals or groups with inferior military capabilities (Schweitzer, 2000). The intent of terrorism is to cause destruction to life and property by terrorizing individuals and generating publicity of the attack (Mazumdar, 2012). The IEP (2014) reported a 5-fold increase in the number of terrorism-related deaths since 2000, increasing from 3,361 in 2000 to 17,958 in 2013 (p. 2). Hassan (2009) reported that the almost daily reports of deaths caused by suicide attacks rarely explain what motivates the suicide attackers. Hassan related that the suicide terrorism database in Flinders University in Australia, the most comprehensive database in the world, contains information on suicide bombings in Palestine, Israel, Iraq, Afghanistan, Pakistan, and Sri Lanka; countries which accounted for 90% of all suicide attacks between 1981 and 2006 (para. 3). Hassan noted that analysis of data contained in the database indicated that politics, more than religious fanaticism, led to suicide terrorism. Hence, Hassan argued that religion may play a key role in recruiting and motivating potential future suicide bombers; however, the driving force is mainly attributed to politics, humiliation, revenge, retaliation, and altruism.

Terrorism, specifically suicide terrorism, offers a unique platform that is challenging to interpret (Atran, 2006). Atran (2006) related that rarely are suicide attacks

unmethodical or the targets unsystematically selected as individuals interested in carrying out a suicide terrorist attack perform hours of preoperational surveillance, tactical training, firearms and explosives training, as well as detailed planning of the clothing they will wear for the attack. In addition to its strategic advantages, suicide bombing has tactical advantages over more conventional terrorist attacks because it is very difficult to detect and stop such attacks (Cronin, 2003). In addition, because the death of the perpetrator is a desirable or acceptable outcome of the attack, more complex missions can be attempted than would otherwise be the case if an escape route was needed (Paz, 2005). Thus, Paz (2005) related that the most difficult aspect of any type of terror attack is the escape, which is unnecessary in a suicide attack. With no need for an escape plan, route, or means of transportation, terrorists can plan and execute missions that otherwise might be too difficult. Furthermore, Paz noted that suicide terrorism allows for precision in the location and timing of the attack and gives the bomber the option of selecting alternate targets if the original target is heavily defended or inaccessible.

Part of the difficulty of organizing counterterrorism operations is the unpredictable nature of suicide bombings, which allow bombers maximum accessibility to high volume targets (Cronin, 2003). Cronin (2003) stated that attackers are intent on hurting or killing; therefore, they are willing to kill themselves in the process. As a result, decision makers and CTOs face many challenges in combating suicide terrorism (Fox, 2014). By focusing on the early planning phases of a terrorist attack, decision makers and CTOs are better able to identify essential opportunities to prevent suicide attacks from

occurring (Fox, 2014). In Chapter 2, I include the introduction, literature search strategy, conceptual framework, background of terrorist attacks, suicide attackers, suicide attack, lone wolf suicide attacks, lessons learned from terrorist attacks, counterterrorism operations and methodologies, and a summary and conclusions.

#### **Literature Search Strategy**

Literature search strategies for this research included a comprehensive search in Walden University Library databases to include ProQuest Criminal Justice, Thoreau Multi-Database Search, Academic Search Complete, Business Source Complete, Homeland Security Digital Library, International Security and Counter Terrorism Reference Center, LexisNexis Academic, and SAGE Premier. In addition, I conducted searches through Google Scholar and relevant organizational websites such as the private intelligence company's website that I used in this study. Key search terms included adversary planning, adversary strategy, suicide bombings, suicide attacks, and exploitable opportunities. Additional articles were examined after I reviewed the reference section from each article, book, dissertation, or thesis.

#### **Conceptual Framework**

By focusing on the early planning phases of a terrorist attack, decision makers and CTOs are better able to identify essential opportunities to prevent suicide attacks from occurring (Fox, 2014). Paul and Landree (2008) related that the more individuals involved in counterterrorism strategies are able to understand adversary strategies, the better equipped they are to identify risks and execute defensive strategies. The authors

argued that any planning process involved in an attack should be studied, which provides unique insights into various phases of the attack such as selecting a target, selecting the mode of attack, choosing specific terrorist operatives, and developing an operational plan. Paul and Landree noted that these decisions do not need to be made in a particular order. Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s (2010) nine preattack phases served as the conceptual frameworks of this study. This section is organized in the following subsections: intelligence preparation of the battlefield, research application of intelligence preparation of the battlefield, modified intelligence preparation of the battlefield, nine preattack phases, and research application of the nine preattack phases.

# **Intelligence Preparation of the Battlefield**

IPB is an analytic framework that the United States military uses to collect, organize, and process intelligence with respect to terror assaults in rural and urban areas of operation (Medby & Glenn, 2002). Medby and Glenn (2002) reported that IPB gives commanders and their staff information on the conditions within their operational area, such as areas of operation, interests, and battlespace that could affect the outcome of their mission. The researchers noted that identified conditions include relevant characteristics of the weather, terrain, population groups and subgroups, media, infrastructure, and threats. In addition, Medby and Glenn related that IPB provides a method of collecting information to describe and depict how each relevant characteristic influence the friendly

unit, enemy unit, and other groups in the operational area. Hence, commanders use IPB to make timely and accurate decisions.

IPB is an ongoing cyclical process that involves four steps, which are as follows:

(a) define the battlefield area, (b) describe the battlefield's effects, (c) evaluate the threat, and (d) develop enemy courses of action (Medby & Glenn, 2002, p. 13). In regard to Step 1, define the battlefield area, Medby and Glenn (2002) reported that focus is placed on battlefield areas and characteristics, which shape the commander's mission. Attention is also placed on obtaining the necessary intelligence to finish the IPB process in order to support the military decision-making process. Hence, specific environment features or activities within it, as well as the physical location that may influence friendly and enemy courses of action (COAs) or the commander's decisions, are identified for additional analysis.

In Step 1, four tasks are normally conducted: (a) define the AO, (b) define the area of interest (AOI), (c) define the battlespace, and (d) gather available intelligence and identify intelligence gaps (Medby & Glenn, 2002, p. 14). For the first task, Medby and Glenn (2002) noted that the AO is a geographical area that includes the above airspace, which is assigned to a commander for military operations. The size of the AO depends on the "mission, enemy terrain, troops, time available, and civilian considerations (METT-TC)" (p. 14) and "the tactics, techniques, and procedures (TTP)" (p. 14) that are used by the unit. Most of the unit's assets are deployed in the AO; thus, a lot of the intelligence effort is placed on this area. In Step 1, in relation to the AOI, which is the second task,

Medby and Glenn related that information and intelligence are obtained from a geographical area in order to allow planning or successful conduct of the command's operation. The aim of the AOI delineation is to assist the command staff with predicting the elements beyond the AO that might influence the mission. The authors recommended that the AOI include combatant and noncombatant assets that could influence the friendly operation. Medby and Glenn noted that systems used to influence the AOI and battlespace goes beyond weaponry, such as civic affairs, public affairs, psychological operations, and other assets.

In Step 1, the third task is defining the battlespace, which pertains to the conceptual physical volume where the commander plans to win against the enemy (Medby & Glenn, 2002). Medby and Glenn (2002) noted that the battlespace in influenced by time, tempo, depth, and synchronization. The battlespace pertains to the ability of the friendly unit to influence activities outside of the assigned AO; therefore, it might be very different from the AOI. During the fourth task, while the limits of the AO, AOI, and battlespace are determined, analysts begins to collect data on important aspects of their area of responsibility (AOR), which includes a combination of the AO, AOI, and the battlespace. Materials include maps, geographical surveys, demographic information, threat order of battle (OB), personality profiles, and the area's historical accounts of activities. Using the information collected, analysts are able to identify important information gaps and work with their commanders to develop relevant questions called

commander's critical information requirements (CCIR) that guide the operation's intelligence collection.

In regard to Step 2, describe the battlefield's effects, analysts show how the weather, terrain, and other battlefield factors can affect friendly and enemy operations within an AO, AOI, and battlespace (Medby & Glenn, 2002). Medby and Glenn (2002) noted that the aim of this step is to allow commanders the ability to quickly choose and exploit the terrain as well as other factors such as whether, politics, and economics, in order to best support the friendly mission. The authors noted that two tasks are involved in this step. The first task is identifying the military aspects of the operational area, such as what is in the area that can affect the mission. Medby and Glenn shared that being able to discern the military features of the terrain normally includes identifying how the relief, structural, and vegetation features of the area serve or interfere with the military purpose. Medby and Glenn noted that military purposes include "observation and fields of fire, concealment and cover, obstacles, key terrain, and avenues of approach," (p. 18) which are also called OCOKA factors. The terrain features are examined to establish how they might be included in each of the OCOKA categories. The authors related that the second task is describing how identified characteristics will affect a unit's operation in the area. The authors noted that after the military aspects are identified, they are used to illustrate how military operations are affected.

In regard to Step 3, evaluate the threat, a profile of the enemy is developed (Medby & Glenn, 2002). Medby and Glenn (2002) noted that using information that was

obtained from national intelligence agencies and the unit's intelligence assets, analysts determine enemy composition, strength, tactics, goals, and vulnerabilities. The authors related that despite the threat, an evaluation must include in-depth investigation of how it affects the friendly unit and how it will successfully achieve the assigned mission. In regard to Step 4, develop enemy courses of action, Medby and Glenn shared that this step combines the first three steps of the process in order to portray how the enemy will use terrain, whether, and current assets to obtain their goals within the chosen AO, AOI, or battlespace. Thus, analysts create templates to depict predicted enemy behavior throughout the AO. In addition, during this step, the authors noted that a consolidated list of all possible adversary COAs should be created.

In summary, during the first three steps, information is compiled about certain features of the operational area (Medby & Glenn, 2002). Medby and Glenn (2002) noted that the information compiled during the first three steps are consolidated during the fourth step and used to predict enemy COAs. The authors reported that the during each of the four steps, questions are asked and answered that help with coordinating reconnaissance and surveillance, managing intelligence-collection efforts, supplying location and asset information for the targeting process, and integrating battle damage assessment (BDA) into the execution of follow-on missions. When the operation has started, it is imperative that the IPB process continues in order to obtain additional situational development and COA assessment.

### Research Application of Intelligence Preparation of the Battlefield

Research is lacking on the application of Medby and Glenn's (2002) IPB analytic framework to suicide attacks; however, authors have written scholarly papers on this framework in relation to suicide attacks. On November 26, 2008, in Mumbai, India, 10 armed terrorists from the group Lashkar-e-Taiba (LeT), used military assault-style tactics to attack businesses, including restaurants and hotels (O'Rourke, 2010). O'Rourke (2010) reported that the attackers targeted one of India's economic and social hub where at least 172 people died, which generated a lot of media attention. The researcher noted that this attack showed a significant shift in tactics using suicide bombers and the placement of improvised explosive devices, which has important lessons for contemporary law enforcement agencies. O'Rourke reviewed the emergent challenges for policing organizations as a result of this attack.

The tactics used by terrorists have continuously evolved from the 1970s when groups such as the Popular Front for the Liberation of Palestine took people hostage and made demands, thus, getting media coverage for their cause (O'Rourke, 2010). O'Rourke (2010) reported that police response to terrorism continues to be determined by the pattern where terrorists take hostages and use media to make terrorist demands to a worldwide audience. However, law enforcement officers are now challenged with the rise of suicide bombers as police officers are not able to isolate individuals or groups, and use negotiation tactics to obtain a resolution. Instead, police officers now have to deal with individuals or groups who place explosive devices on themselves or in places, denoting

them without making any demands. Lia (2007) posited that if the loss of lives and the atrocity committed are high, then there will be a lot of media coverage.

Terrorist or extremist groups need access to essential weaponry and they need to have the ability to operate undetected by intelligence agencies in order to carry out similar attacks like the one in Mumbai, India (Bennie & LeMiere, 2008; O'Rourke, 2010). Sullivan (2008) related that societal changes are resulting in new models to collect and analyze intelligence that is needed for public policy and national security operations. O'Rourke (2010) discussed the need for predictive analysis or warning intelligence, which gives law enforcement agencies the ability to take action before a terrorist attack. Sullivan and Wirtz (2008) reported that the IPB military model can be adapted into a new approach called intelligence preparation for operations (IPO) and used by law enforcement officials.

The IPO approach is a four-step process, which is as follows: (a) situational recognition, (b) analysis, (c) divining course of action, and (d) rehearsals (O'Rourke, 2010, p. 50; Sullivan & Wirtz, 2008, p. 16). Sullivan and Wirtz shared that the first IPO step is to define the operational space, which may include planned events or targets that terrorists or criminal networks have identified. The second IPO step is to give basic information about operational spaces that are known in an easy to use format called target or response information folders that include information about the local populations, terrain, whether, and historical information about infrastructure and cultural areas. The third IPO step is identifying and evaluating threatening groups or people in relation to

weapons that they may use, such as chemical weapons, small arms, and explosives; as well as the tactics they may use in their planned activities, such as suicide bombing. In the fourth IPO step, potential courses of action are created for opposing and friendly units. The IPO model provides numerous scenarios; therefore, it can also be used to bridge the divide between deliberate and emergency response planning (O'Rourke, 2010). O'Rourke (2010) noted that commanders are then able to create different responses and assess their suitability

When discussing war with Iran, such as the use of limited air strike or full invasion, proponents for war often overstate the benefits, such as a preventing a nuclear disaster with Israel while concealing the costs, such as the number of fatality that would occur among U.S. soldiers, airmen, and marines (Cummings & Cummings, 2012). Cummings and Cummings (2012) described possible Iranian responses to American and Israeli air strikes. The researchers used the Army's IPB analytic tool to examine the operational war environment with Iran and broadly described Iran's terrain. In addition, the researchers discussed how Iran's military adopted asymmetric tactics to defeat their enemies, such as the United States. The researchers discussed a course of action that is available to Iran at sea, air, ground, in other countries, and the use of terrorism around the world.

The United States could become involved in a secret war of terrorist attacks and special counterterrorism operations outside of Iran and the Persian Gulf (White, 2011). However, Byman (2013) argued that this kind of war is already taking place. According

to Bryman, Iran is a major sponsor of terrorism that strikes Israel, U.S. Arab allies, and U.S. citizens. The author discussed two blasts on November 19, 2013, that destroyed the Iranian embassy in Lebanon and killed at least 20 people. Bryman argued that these attacks are a reminder that Iran has a serious terrorism problem. Byman noted that the increasing violence further destabilizes the Middle East and negatively affects U.S. interests.

Predicting how Iran will use terrorism is more challenging than conventional forms of warfare, which require weapons and vehicles (Cummings & Cummings, 2012). Cummings and Cummings (2012) emphasized that terrorism requires a great deal of planning such as 9/11, which required flight school training for at least eight individuals. The authors discussed Iran's terrorism courses of action and noted that Iran could conduct cyber and terror attacks on Israel, the United States, Europe, and the Gulf Cooperation Council (GCC) nations. The GCC includes six Middle Eastern countries, which are as follows: Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman ("Gulf," 2015). Cummings and Cummings concluded that the biggest threat for war with Iran is an out of control war.

## Modified Intelligence Preparation of the Battlefield

The ModIPB basic framework is derived from the U.S. Army IPB (Landree et al., 2007). Landree et al. (2007) reported that due to the abundance of information in the public domain, being able to identify all the information that are essential to a potential target and evaluating its possible value to terrorist planners is overwhelming. Therefore,

Landree et al. created the ModIPB as a way to define the kinds of information most likely to be useful in planning and carry out attacks on certain targets. In the ModIPB, Landree et al. identified four main categories of information where all possible relevant information requirements are grouped: (a) approach avenues and ease of access (b) target features, (c) security, and (d) threat analysis in relation to terrorist operations (p. 19). The researchers noted that the first two categories pertain to IPB concerns with battlefield environment and effects, which are the first two IPB steps. The third category is drawn from the third IPB step, evaluate the threat. The fourth category is based on the threat evaluation and the development of the enemy COAs, which are the third and fourth IPB steps.

The first category, approach avenues and ease of access, include multiple elements such as target location and surrounding terrain and buildings, such as maps, blueprints, types of building construction, critical points, and OCOKA factors (Landree et al., 2007). Landree et al. (2007) also noted that the first category includes available paths to target, such as the exact paths to take, go or no-go areas due to barriers, obstructions, or impassable terrains, restricted areas or limited access due to security restrictions, rules or laws governing movement in target area, and traffic conditions in relation to vehicles and pedestrians. The researchers related that well planned terrorist attacks require planning about how attackers will reach the target such as the use of scenarios about how attackers will be at a certain place at an exact time in order to carry out a coordinated attack or multiple attacks, or an attack against a moving target. In addition, terrorists do

not want to be identified; thus, planning includes the exact paths they will take. Terrorists who plan overt attacks may be concerned about whether they will be seen, the presence of physical obstacles, and time and place of the greatest risk where they may be seen by security forces or pedestrians.

Features of the second category, target features, may overlap with those in the first category, approach avenues and ease of access (Landree et al., 2007). Landree et al. (2007) noted that elements of target features include attack and target. The researchers related that attack pertains to the possible locations from which to launch an attack and possible times to launch an attack. Landree et al. reported that target includes the mobility and variability of the target. If the target is mobile, the predictable path it takes is considered. Target also includes important features and structure of the target, such as technical details. The researcher shared that elements included in the third category, security, include security forces, security measures, and other population groups that are present. Landree et al. noted that security forces include the size and types of security forces, such as armed and unarmed, plainclothes, canine, and mounted, along with their jurisdiction. The researchers shared that security measures include specific countermeasures as well as checkpoints use and function, and sensors such as cameras, scanners, and other detection equipment. Other population groups include nonsecurity force workers in the operations area. Landree et al. related that terrorists assess who these workers are, when they may be present, and what they do in the operational area. The researchers noted that terrorist planning also includes knowing whether nonsecurity

workers have had training or have been given instructions that might increase their contribution to security.

The fourth category, threat analysis in relation to terrorist operations, includes threats posed by security forces and security measures, threats posed by employees of the target, concentrations and heightened vigilance of citizens, and how weather affects operation effectiveness (Landree et al., 2007). Landree et al. (2007, p. 19) noted that the elements in this category are assessed based on the information that was collected in the first three categories. In addition, the researchers shared that the elements in this category provide an estimate of how information may affect the terrorist attack operation from terrorists' perspectives, as they are the ones collecting the information.

# Research Application of the Modified Intelligence Preparation of the Battlefield

Obtaining information that is relevant to planning terrorist attacks from available public sources is valuable to terrorist planners because it can normally be obtained at lower cost, risk, and effort than more direct forms of gathering information such as observation of a possible target (Landree et al., 2007). Landree et al. (2007) developed the ModIPB framework to guide assessments of available information that is used for planning attacks on the U.S. air, rail, and sea transportation infrastructure. Even though the study was conducted in 2007, it is very relevant and applicable to this research study. The researchers applied the ModIPB framework in a red team information gathering exercise. The red team served as substitutes for terrorists seeking information about each of the potential six attack scenarios. The red team exercise represented the beginning of

detailed operation planning and no information was assumed to have already been collected. Information gathering for operational planning was conducted without travel to the target site and through very low-risk or no-risk information gathering activities, specifically, public source, off-site research. Using the ModIPB framework as a guide, the researchers instructed the red team to obtain information to complete an operational plan for each of the six scenarios.

The six scenarios were as follows: (a) a poison gas attack on the New York City (NYC) subway at 42nd station street, (b) bomb in a passenger plane cargo hold at the Los Angeles International Airport (LAX), (c) shipping a nuclear device in a cargo container through Los Angeles, Long Beach (LA/LB), (d) Madrid-style bomb attack on commuter train in the NYC East River tunnel, (e) man-portable air defense system (MANPADS) attack on a flight bound into LAX, and (f) suicide boat rams a docked cruise ship at the Port of Los Angeles (Landree et al., 2007). Landree et al. (2007) noted that the red team exercise was subjected to three levels of validation: (a) a review by subject matter experts (SMEs), (b) a review based on interviews conducted with transportation infrastructure insiders, and (c) an assessment comparing the results obtained by a research and development (RAND) expert who was tasked with the same exercise to those by the team. Findings indicated that the ModIPB framework was beneficial in directing analyses of publicly available information that would be needed to plan terrorist attacks across numerous transportation infrastructure targets and attack methods. Thus, Landree et al. found that the ModIPB was applicable to the problem of identifying information that

might reveal vulnerabilities in those systems. In addition, the researchers found that when this framework was applied, it became clear what types of information were relatively hard versus relatively easy to find for the six scenarios. Landree et al. discussed two implications in relation to the availability of information. First, the researchers related that although the results indicated that a lot of information that are relevant to the execution of a particular terrorist attack is available, much of the information is not detailed enough to allow terrorists to carry out attacks with a high level of confidence that the attacks will be successful. Second, information that are useful to terrorists can be obtained from nonobvious sources, such as official and company websites, and newspaper articles. However, the researchers noted that the information provided from these sources does not create a threat to operational security.

Based on the findings, Landree et al. (2007) proposed two recommendations to assist infrastructure owners increase security. First, the researchers recommended that infrastructure owners conduct periodic reviews and revise procedures for operational and information security in order to prevent security details from entering the public domain. Second, Landree et al. recommended that owners and operators of transportation businesses include information that can be obtained from easily accessible, off-site public information sources in vulnerability assessments. For example, the researchers noted that owners and operators of transportation businesses should assess the specific vulnerabilities created by public knowledge of passenger travel information such as

schedules, costs, and security procedures that passengers need in order to address them through countermeasures.

#### **Nine Preattack Phases**

Before a terrorist attack, individuals who are involved join a terrorist group; get training; plan the attack; obtain finances, weapons, and other materials; and prepare or rehearse for the final attack (Freeman et al., 2010). To incorporate these activities, Freeman et al. (2010) created nine different phases. Freeman et al. shared that each of the phases was created to be distinct as possible from the others; however, they recognized that some of the phases may overlap or that it may be challenging to differentiate when actual cases are coded. Freeman et al. nine preattack phases are as follows (p. 77):

- Networking and indoctrination: In this phase, cell members are introduced and exposed to radical doctrine through various events, such as religious instruction, meeting, cohabitation, and social activities.
- 2. Terrorist training: This phase often overlaps with phase one and include cell members' participation in organized terrorist activities.
- 3. General planning: In this phase, the decision to conduct a terrorist attack is made as well as the choice of a general target area or target set, such as ships, bars, U.S. citizens, and soldiers. In addition, general shopping for potential targets is performed.
- 4. Recruitment: In this phase, senior terrorist elements select and activate cell members for a certain terrorist operation. Similar to 9/11, it is assumed that

there is a senior element that helps with recruitment and personnel selection. However, in the terrorist group that carried out the attacks on the London mass transit system on July 7, 2005, also called 7 July attacks or 7/7 attacks, this may not have been the case (Freeman et al., 2010; Ray, 2016).

Nevertheless, Freeman et al. noted that in groups like this, a recruitment and selection process still occurs as preexisting groups of friends and acquaintances go through the radicalization process that results in a group committed to an attack.

- 5. Financing: In this phase, funds are collected and allocated for a certain terrorist attack. For example, the money came before the decision to conduct an attack was made when a cell within the al-Qa'ida network carried out the attack on the U.S. Navy ship Cole on October 12, 2000 (Freeman et al., 2010; Pearl & O'Rourke, 2001).
- 6. Operational planning: In this phase, the specific target is selected, detail reconnaissance of the target is conducted, and specific operation planning takes place such as the delivery and procurement methods.
- 7. Weapons procurement: In the phase, materials for the construction of explosives or weapons that will be used in the attack is obtained or received, such as accelerants, detonators, fertilizers, and rockets.

- 8. Logistical preparation: In this phase, logistical actions are taken in order to prepare for the terrorist attack, including safe house rental, vehicle and document procurement, and electronics purchase.
- Operational preparation: In this phase, physical preparations for the imminent terrorist attack takes place, including explosive construction, vehicle alteration, specific explosives training, and multimedia preparation and creation.

In Table 1 below, I compare Freeman et al.'s (2010) nine preattack phases, Medby and Glenn's (2002) IPB analytic framework, and Landree et al.'s (2007) ModIPB framework. I also included al-Qa'ida's (1988/2002) planning phases for comparison with the three conceptual frameworks.

Table 1

Conceptual Framework Comparisons

Planning categories	Freeman et al.'s (2010) nine preattack phases	Medby and Glenn's (2002) IPB framework	Landree et al.'s (2007) ModIPB framework	al-Qa'ida's (1988) planning phases
Identify and recruitment (Phase 1 and 2)	Networking and indoctrination	Identify target area	Target access	Target location and accessibility
Area details (Phase 3)	Terror training	Identify target Area specifics	Target characteristics	Target area population
Assess (Phase 4 and 5)	Planning and recruitment	Evaluate the threat	Onsite operations	Building layout
Plan (Phase 6)	Financing		Threat assessment	Transportation to and from target
Location specifics (Phase 7)	Target specifics	Determine enemy action	Target intent	Mobilization speed
Target specifics (Phase 8)	Weapon procurement			Ammunition and communication details
Final prep (Phase 9)	Logistical and physical prep			Target security Personnel details

### **Research Application of the Nine Preattack Phases**

To determine whether terrorist attacks follow an observable pattern in their preattack activities, Freeman et al. (2010, p. 75) divided terrorists' preattack activities into nine phases: networking, training, general planning, attack-specific recruitment, financing, operational planning, weapons procurement, logistical preparation, and operational preparation. Using these nine phases, the researchers examined 21 terrorist attack cases (e.g., 1993 World Trade Center bombing, 9/11, 2007 Fort Dix plot, and 2007 John F. Kennedy (JFK) International Airport plot) and two school attacks (1999) Columbine shooting and 2007 Virginia Tech shooting) that are not normally considered terrorist attacks since there were no contributing political factors. For each case, the researchers investigated whether there was evidence of when terrorists or attackers took part in activities across the nine phases. The researchers noted that the cases were not chosen randomly, thus, conclusions must be tentatively interpreted. Instead, Freeman et al. related that the cases were chosen based on two criteria: (a) cases where the researchers expected to obtain data on the different phases and (b) cases where the researchers could obtain a lot of variation. Variations included big cases such as 9/11, smaller attacks such as the LAX Millennium plot, al-Qa'ida attacks, attacks by other groups, nonmaritime attacks, successful attacks, failed attacks, and cases that were thwarted. By including different types of cases, the researchers were able to see if they fit the larger overall pattern.

Findings indicated that the nine phases fell into three stages (Freeman et al., 2010). Freeman et al. (2010) related that Stage 1 included Phases 1 through 3, which are planning, training, and networking. This stage takes place 1 year or more in advance of the attacks. Stage 2 included Phases 4 and 5, which are recruitment and financing. This stage takes place 6 months to 1 year in advance of an attack. Stage 3 includes Phases 6 through 9, which are operational planning, weapons procurement, logistical preparation, and operational preparation. This stage takes place closest to the attack, normally within a few months before the attack is carried out. The researchers noted that these three stages are robust across types and scales of attacks and the researchers suggested that these stages might be used as an indication of the timing of possible future attacks.

Decision makers and CTOs are faced with many challenging situations in combating global terrorism (Fox, 2014). Seeking to add a new quantitative aspect to Freeman et al.'s (2010) work, Fox (2014) examined the use of a hybrid multiattribute decision-making approach, analytical hierarchy process (AHP), and technique of order preference by similarity to ideal solution (TOPSIS), to rank order the nine phases of a terrorist attack based on data from 21 different terrorist attacks. Thus, Fox used the AHP and the TOPSIS to interpret the data into a better understanding of which terrorist attack phases to focus intelligence collection. When AHP was the only decision-making approach used, Fox found that terrorist training, networking, planning, and operational prep made up over 65% of the ranking weights. On the other hand, when TOPSIS was used, the top four ranked ordering were operational prep, recruitment, terrorist training,

and terrorist networking, which accounted for over 76% of the ranking weights. Fox noted that both the AHP and the TOPSIS identified planning as the most detectable phase, followed by recruitment, financing, logistic prep, weapons procurement, operational planning, terrorist training, operational prep, and networking, respectively. Fox concluded that by having the correct focal point, decision makers and CTOs have insight into options and connected events, which increases their ability to prevent attacks.

### **Background of Terrorist Attacks**

While the evolution of U.S. national security policy began with the end of the Cold War and the rise of radicalized terrorism, the first identified terrorist group dates from 66 A.D. to 73 A.D., when a Jewish group called Sicarii tried to displace the Romans and their Jewish supporters from the Judean Region (Harmon, Pratt, & Gorka, 2011). Kramer and Pape (2005) related that modern-day tactics such as suicide bombings began in Beirut, Lebanon, in 1981. This method was first implemented during a bombing attack against the United States. The Central Intelligence Agency (CIA, 2014) reported that on April 18, 1983, an individual strapped with explosive devices drove a truck toward the U.S. Embassy in Beirut. The suicide driver detonated a 2,000-pound bomb that killed 63 people, including 17 Americans and injured 120 individuals in the nearby perimeter. The bombing was carried out by a previously unknown group, Islamic Jihad, known today as Hezbollah, the Party of God. Friedman (1998) reported that 6 months later, on October 23, 1983, Hezbollah struck the building housing the U.S. Marine's peacekeeping force in Beirut using a suicide truck bomb. Friedman related that most of those killed were asleep

in their bunks when the explosion occurred at 6:20 a.m. The researcher explained that the incident killed 241 Americans and injured 81 individuals. Friedman noted that approximately 2 minutes later, Hezbollah also struck the French barracks in Beirut, killing 58 French soldiers. Ganor (2003) reported that the motive behind the embassy and barracks attacks was to pressure the multinational peacekeeping force to leave Lebanon. In the wake of these attacks, both the U.S. and France withdrew their forces from Lebanon.

Even though there is Islamic teachings against suicide and the killing of innocent people, terrorist groups such as al-Qa'ida and the Islamic State or ISIS or ISIL have used Islamism, which is a political form of Islam, to substantiate their terrorist actions (Constitutional Rights Foundation [CRF], 2016). In this study, the Islamic State will be referred to as ISIS. The CRF (2016) reported that Osama bin Laden founded al-Qa'ida in 1988 and this terrorist group committed many terrorist acts, killing numerous men, women, and children. The CRF related that al-Qa'ida was responsible for the 1998 terrorist attacks at U.S. embassies in the East African countries of Kenya and Tanzania, which killed 12 Americans and approximately 250 Africans, many of whom were Muslims (para. 2). In addition, the CRF noted that this group was also responsible for 9/11, where suicide attackers killed approximately 3,000 people (para. 2). In 2003, al-Qa'ida suicide terrorists killed 35 people, including 12 Americans, when they set off bombs in three housing compounds in Riyadh, Saudi Arabia (CRF. 2016). Other terrorist groups linked to al-Qa'ida were responsible for the 2005 subway bombings in London

that killed 56 people and the 2008 shootings and bombings in Mumbai, India, which killed over 160 people (CRF, 2016, para. 3). The CRF shared that in 2010, a bomber tried to set off a car bomb in New York City's Times Square.

ISIS has risen to power in the Middle East and has developed an ideology that is more extreme and brutal than other terrorist groups (CRF, 2016). The CRF (2016) noted that this group has seized territories in Iraq and Syria, driving many Syrians from their homes. The CRF reported that another jihadist group, Boko Haran, organized a militant rebellion against the Nigerian government. Boko Haram goal is to conquer Christian-dominated areas in Southern Nigeria and instill an Islamist government for the whole nation (CRF, 2016). This group targets Muslims and Christians in violent raids and assaults (CRF, 2016). The CRF shared that Boko Haram received the world's attention in 2014 when members of the group kidnapped 276 school girls from a government secondary school in Chibok (para. 43). The majority of the girls were Christians and were forced to convert to Islam. Only a few were rescued as many were sold into slavery, forced into marriages, and brainwashed to become Boko Haram fighters (CRF, 2016). The CRF related that Boko Haram was originally allies with al-Qa'ida, but in 2015, the group announced its support for ISIS.

The events that occurred on 9/11 sparked an urgent need to understand whether terrorist attacks follow an observable pattern in their preattack activities (Freeman et al., 2010; Fox, 2014). With regard to terrorism in Israel, the ability of terror organizations to successfully target civilian or nonmilitary objectives in Israel is achieved not through

capture of land but by instilling fear in the civilian population (Dolnik, 2007). To achieve its goal, terror organizations study potential targets to reveal community vulnerabilities and exploit those vulnerabilities for terrorist attacks (Dolnik, 2007). Paul and Landree (2008) related that even the most complex events such as terrorist acts have certain patterns that can be studied and exploited to prevent future occurrences; therefore, by understanding the processes by which the adversary plans and executes its attack, counterterrorism professionals can allocate resources and countermeasures to effectively thwart the adversary's planning process or mitigate the effects of terrorist attacks.

#### **Suicide Attackers**

Understanding terrorists' mental state may provide important insight that may be used to create counterterrorism methodologies. Gill, Horgan, and Deckert (2014) analyzed the characteristics of lone actors with regard to their behaviors prior to an attack as well as their sociodemographic background. The researchers found that network connectivity and ideologies did not reveal a uniform profile of the attacker; however, there were interesting findings with regard to transience and social isolation. Findings indicated that approximately half of the attackers had changed their address within 5 years before the attack. Findings also revealed that social isolation was a common trait among attackers, where more than 52.9% were described as socially isolated and at least 37% of the attackers lived alone at the time of the planning or attack (p. 6). Findings from the study contributed to an overall understanding of the very early adversary planning phases and how attackers' surroundings influenced their terrorist transformation.

A single profile of suicide bombers does not exist (Merari, 2000). Merari (2000) profiled more than 50 identified radical Islamists who used suicide bombing and served in Hezbollah, Amal, and secular Syrian organizations in Lebanon, as well as in Hamas and Palestinian Islamic Jihad. Merari concluded that there is no single psychological or demographic profile of suicide terrorists. The researcher related that as a group, suicide attackers are rational and do not suffer from psychopathology. While no single profile of suicide bombers exists, certain trends, descriptive statistics, and social factors are nevertheless useful in developing an understanding of suicide bombers. Given the complexity and ongoing difficulties of successfully identifying, profiling, and preventing terror attacks, particularly suicide bombings, there is a need for scholars to examine differences in the processes, preparation, and execution of both successful and unsuccessful attacks, including terrorists' motivation, resources, recruitment, and planning activities. The response to such asymmetrical challenges is constantly being reevaluated due to past ineffective practices in countering them. Terrorists learn from each other's successes and failures and adapt their tactics accordingly (Atran, 2006). Atran (2006) related that historical successes and the difficulties inherent in preventing suicide bombing incidents have led to much more imitation than innovation in the evolution of suicide bombing tactics.

Understanding perpetrators of attacks and events that may have led to their decision to execute an attack are crucial factors for preventing future attacks. Pape (2008) created a database of all suicide bombing and attacks that took place around the world

from 1980 to 2003, which was the first complete data created. The researcher found that 315 attacks were carried out and at least one terrorist killed himself or herself while trying to kill others (p. 129). Pape excluded attacks that were authorized by a national government. Pape found that the connection between suicide terrorism and Islamic fundamentalism or any other religion was small. The researcher found that the leading suicide attackers were the Tamil Tigers in Sri Lanka, a Marxist-Leninist group whose members were from Hindu families who were opposed to religion. Findings indicated that the Tamil Tigers committed 76 of the 315 attacks, which was more than Hamas (p. 130). Pape related that what nearly all the suicide attackers had in common was a secular and strategic goal of forcing modern democracies to withdraw their military forces from territories that the terrorists believed to be their homeland. Thus, Pape explained that religion was hardly the main cause of terrorist attacks; however, it was used as a tool to recruit and used as to tool to obtain broader strategic objectives.

General patterns in the data supported Pape's (2008) conclusions. First, findings indicated that almost all of the suicide attacks occurred as part of organized campaigns and not as isolated incidents. From the 315 separate attacks, 301 had roots traced to large, coherent political or military campaigns (p. 130). Second, Pape found that democratic states were vulnerable to suicide attacks, such as Israel, the United States, France, India, Russia, Sri Lanka, and Turkey. Pape found that for the past 2 decades, these countries have been targets of nearly every suicide attack. Third, findings indicated that suicide campaigns were directed toward a strategic objective, such as in Israel, where the

sponsors of the terrorist campaigns have been terrorist group who tried to create or maintain political self-determination by forcing a democratic power to withdraw from their claimed territories. For example, Pape noted that Osama bin Laden's objective was to expel American troops from the Persian Gulf and to reduce Washington's power and influence in the region.

Suicide terrorists do not have considerable psychopathology and they are similarly educated and have similar economic means as their surrounding populations (Atran, 2003). While Pape (2008) concluded that suicide bombers may be from middle-class families and have secular educations, Atran (2003) noted that most individuals who volunteer or are selected to carry out attacks regard religion as an important personal value. Freeman et al. (2010) related that while terror organizational members in groups such as al-Qa'ida and Hezbollah have carried out carefully planned attacks and assassinations in efforts to make nonreligious political gains, religious motives have frequently played a role in the decisions of suicide bombers. Atran reported that their religious beliefs allow them to justify attacks as a battle against threats to Islam, claiming that their actions are sanctioned by their Islamic religion. Atran related that the importance of religion in the lives of suicide bombers indicate that suicide terrorism is not one dimensional. Freeman et al. shared that modern strategic logic of suicide bombers usually incorporates both secular and religious ideals.

Suicide terrorists have certain personality traits that may lead them to kill themselves and murder others (Kennedy, 2006). Kennedy (2006) related that those traits

include antisocial behavior, authoritarian personality, dependency, narcissism, paranoia, and detachment. The researcher related that other factors include extramarital pregnancy, sterility, or a desire for revenge for prior perceived injustices perpetrated by government entities or other rivaling groups. Kennedy cautioned that although the character traits may be shared by individuals engaging in terrorist activities, they are also present in individuals who do not engage in terrorist activities, which shows the complexity of creating a psychological profile of terrorists. Due to the limitations of psychological profiling, behavioral profiling is also used by military, police, and security personnel who monitor critical infrastructure for evidence of terrorist activity and the presence of suicide bombers (Kennedy, 2006). Kennedy discussed suspicious activities that might be precursors to a suicide attack; however, the researchers argued that the inability to create a clear profile of a terrorist make counterterrorism and the prevention of suicide attacks during the operational phase an especially difficult and complex task.

#### **Suicide Attacks**

In this section, I provide an overview of suicide attacks. I also discuss suicide attacks in Israel. I organized this section in the following subsections: overview, suicide attacks in Israel, target selection and execution, and after attack responses.

#### Overview

In many instances, suicide attackers are not irrational individuals, but instead are driven by social and political motivations (Kennedy, 2006). Kennedy (2006) asserted that unconventional use of violence, including suicide terrorism, can be effectively used by

individuals or groups because it allows them to maximize the number of casualties and the emotional effect that such a seemingly desperate attack will have on a broader audience (Kennedy, 2006). Kennedy reported that from 1980 to 2003, only 3% of terrorist incidents were attributed to suicide attacks, but such attacks were responsible for 48% of the casualties inflicted (p. 1). The researcher noted that suicide attack is a highly potent tactic that is continually used due to its ability to force troop withdrawals and obtain other goals in the Gaza Strip, Lebanon, Sri Lanka, the West Bank, Turkey, and Spain (Kennedy, 2006). Bakken (2007) agreed with Kennedy and related that while suicide terrorism is viewed by many as an insane act, it is a very deliberate and effective tactic.

Suicide bombings present highly complex situations for counterterrorism and COIN professionals. In asymmetric warfare, where the military power differs significantly between two rivals, suicide bombings are often used as the smaller weaker group attacks the stronger one (Saxton, 2016). Straoke (2007) discussed the use of suicide bombing as a tactical means of asymmetric warfare in Iraq. The author related that after the U.S. occupation of Iraq in 2003, the primary strategic objective of the Iraqi insurgent movement was to liberate Iraq from foreign occupation. Straoke reported that two other objectives emerged: (a) to force U.S. troops to withdraw from Iraq and (b) to undermine the postinvasion political arrangements putting pressure on the Iraqi government to resign. These two objectives led to a final objective, which was to free Iraq from the United States and its agents. To accomplish their primary objectives, Iraqi

insurgents used political and military tactics, with suicide bombing being the tactic most widely used.

In addition to its strategic advantages, suicide bombing has tactical advantages over more conventional terrorist attacks because it is very difficult to detect and stop (Cronin, 2003). Cronin (2003) stated that suicide attackers are so intent on hurting or killing that they are willing to kill themselves in the process. Paz (2005) related that since the death of the perpetrator is desirable or is an acceptable outcome of the attack, more complex missions can be attempted than would otherwise be the case if an escape route was needed. Hence, the most difficult aspect of any type of terror attack is the escape, which is unnecessary in a suicide attack (Paz, 2005). With no need for an escape plan, route, or means of transportation, terrorists can plan and execute missions that otherwise might be too difficult (Paz, 2005). In addition, Paz related that suicide attacks allow for precision in the location and timing of the attack and gives the bomber the option of selecting alternate targets if the original target is heavily defended or inaccessible.

#### Suicide Attacks in Israel

The global terrorism index (GTI) report includes a comprehensive summary of key global trends and patterns in terrorism, from 2000 to 2013 (IEP, 2014). The IEP (2014) created the GTI with data from the National Consortium for the Study of Terrorism and Responses to Terrorism (START) global terrorism database (GTD). The IEP reported that the GTD is the most comprehensive dataset on terrorism activity worldwide, with over 125,000 terrorist incidents categorized. According to the IEP, since

2000, the number of deaths attributed to terrorism has increased 5-fold, from 3,361 in 2000 to 17,958 in 2013 (p. 2). However, the IEP noted that for 4 years, beginning in 2007, there was a modest decrease in terrorist deaths and a small decrease in the number of countries experiencing greater than 50 deaths from terrorism each year (p. 2). The IEP reported that the largest increase in terrorist activity can be attributed to the start of the 2011 Syrian Civil War.

Terrorism is a major national security problem for many countries (IEP, 2014). The IEP (2014) noted that most terrorist-related deaths (66%) in 2013 are claimed by four terrorist organizations, which are ISIS, Boko Haram, the Taliban, and al-Qa'ida (p. 2). The IEP related that the recent rise of extreme violent groups such as ISIS in Syria and Iraq and greater territorial ambitions in the Levant, which includes the countries of Syria, Israel, Lebanon, Jordon, Palestine, and Southern Turkey, increases the risk of further destabilization in the Middle East region. According to the IEP, al-Qa'ida members view the West as allied to Israel and believe that this relationship is attributed to the poverty of many Muslim countries. As a result, al-Qa'ida's goal is to eradicate the Muslim world of Western influence and implement an Islamic state under Sharia law. The IEP related that the findings provided guidance in assessing the risk of future terrorist attacks in countries where there are currently low levels of activity. The IEP claimed that when different political, social, and violent indications are measured and compared, countries at risk of a major increase in terrorism can be identified. The IEP found that 13 countries were at risk for an increase in terrorism, which includes Israel. The other 12 countries identified were

Angola, Bangladesh, Burundi, Central African Republic, Cote d'Ivoire, Ethiopia, Iran, Mali, Mexico, Myanmar, Sri Lanka, and Uganda.

From 2000 to 2013, 5% of all terrorist-related deaths have occurred in Organization for Economic Cooperation and Development (OECD) countries (IEP, 2014, p. 35). OECD refers to a forum where governments from 23 democracies with market economies and 70 nonmembers work together to foster economic growth, prosperity, and sustainable development (United States Mission to the Organization for Economic Cooperation and Development [USOECD], 2016). The IEP (2014) related that with the exclusion of the United States, Israel and Turkey experienced the highest number of deaths. In 2012, eight OECD countries experienced deadly terrorist attacks compared to 20 OECD countries that have had deadly terrorist attacks since 2000 (p. 3). The IEP related that from 2000 to 2013, the rate of suicide attacks has increased, but the areas where most of the attacks occurred have changed. From 2000 to 2003, most suicide attacks occurred in Israel, the West Bank, and Gaza (p. 34). However, in 2003, a truce started that led to the gradual decline of suicide attacks and in 2006, Hamas won a majority in the Palestinian legislative election and condemned the use of suicide bombing, which reduced this tactic. From 2008 to 2013, the IEP reported that in Israel, both the political process and counterterrorism activities led to a considerable decease in terrorist activities from Hamas, the al-Asqa Martyrs' Brigade, and the Palestinian Islamic Jihad. The IEP noted that with the invasion of Iraq in 2003, suicide bombing started and

Iraq accounted for 43% of all suicide attack deaths in the last decade (p. 34). However, the IEP related that proportionately, suicide attacks still remain low.

In OECD countries, from 2000 to 2013, the United States had the highest number of deaths from suicide attacks with 3,042, with 2,996 deaths attributed to 9/11 (IEP, 2014, p. 35). The IEP (2014) found that Israel had the second highest number of deaths with 841 or 17% of all fatalities (p. 35). In 2013, OECD countries with the highest number of terrorist-related deaths were the United Kingdom (UK) with 131 deaths (88% in Northern Ireland), Turkey had 50 fatalities, and Mexico had 40 fatalities (p. 35). In 2013, Israel had 24 fatalities from terrorist attacks (p. 35). Israel was also on the list of countries that may experience increases in terrorism due to ongoing conflicts.

In 2008, two terrorists armed with suicide bombs arrived at an open public marketplace in Dimona, which is small city in Israel (Amital et al., 2012). Amital (2012) reported that two terrorists from the Izzedine al-Qassam Brigades terrorist squad from the Hebron Hamas organization carried suicide bombs to an open public marketplace. One of the suicide attackers denoted his bomb, which inadvertently injured the second suicide attacker and the bomb killed one woman and injured 48 people. The researchers shared that this was the first suicide attack in Dimona. Amital et al. compared the differences in emotions and disturbances in daily life activities 2 days after the suicide attack in Dimona between the self-reported resilient and low-resilient population and Israel's general population. The researchers conducted telephone surveys with a random sample of 678 adults (428 Israeli residents and 250 Dimona residents; pp. 281–282). Findings indicated

significantly higher prevalence of stress and fear and lower prevalence of joy among the Dimona population compared to the general Israel population. The researchers also found a significant higher prevalence of disturbances in daily life activities and changes in leisure activity in the self-reported low-resilient Dimona population. In addition, findings indicated a higher percentage of adverse emotional responses in the Dimona population at the early phase after a terrorist attack compared to the general Israel population. The researchers recommended that the differences found between the two populations should be addressed by social services following terrorist incidents.

Following 9/11, posttraumatic stress disorder (PTSD) symptoms and widespread anxiety have occurred among individuals who have been directly and indirectly exposed to terrorist attacks (Shalev et al., 2006). Shalev et al. (2006) evaluated the effects of continuous terror by examining the prevalence of PTSD, PTSD symptoms, and symptoms of general distress in individuals who lived in two different suburbs in Jerusalem, Israel, a directly exposed community and an indirectly exposed community. During the 8 months before data collection, the directly exposed community experienced higher rates of suicide attack while the indirectly exposed community did not.

Participants included 167 individuals who were indirectly exposed to terrorist acts and 89 individuals who were not indirectly exposed. Findings indicated similar PTSD prevalence and similar levels of PTSD intensity and general distress in the two populations. Thus, exposure to discrete events may not be a necessary mediator of terror threat. The researchers also found equal exposure of men and women to terrorist incidents and equal

prevalence of PTSD in both genders. In addition, the researchers found an unequal distribution of PTSD symptoms, where 25% of the population was highly symptomatic while others expressed low symptom levels (p. 672). Many of the participants met the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) symptom criteria without simultaneously reporting significant distress and impairment. Furthermore, the researchers found that disruption of daily living significantly contributed to PTSD symptoms.

### **Target Selection and Execution**

It is important to understand the methods utilized for target selection by adversaries. Berman and Laitin (2005) discussed adversaries' selection of hard and soft targets. According to the authors, soft targets have little or no military protection or security. Berman and Laitin reported that soft targets can include commercial and private sectors as well as other targets such as areas or events where the public attends, which are under minimal security, such as nightclubs, schools, movie theaters, and malls. The researchers noted that groups who are not part of a central terror organization, but are loosely affiliated, are often unable to attack hard targets and as a result, tend to focus on soft targets. On the other hand, Berman and Laitin related that hard targets have some degree of military protection or security, making escape scenarios unlikely, and usually requires the penetration of various layers of security by the adversary at the time of the attack. The authors noted that there is a risk of being intercepted, often with potentially lethal force. Hard targets can force attackers either to escalate the size and force used,

identify a vulnerability that can be exploited, or risk failure. Hard targets include airports, military bases, political organizations, and high-ranking politicians and heads of state, such as presidents (Stewart, 2012). Berman and Laitin related that suicide attacks are more likely used against well protected hard targets than against poorly defended soft targets.

In 1993, approximately 10 years after the suicide attacks began in Lebanon,
Palestinian groups like Hamas and Palestinian Islamic Jihad began using suicide bombers
against Israeli targets in an attempt to disrupt talks for a potential peace process (Dodd,
2013). Dodd (2013) reported that many of these attacks were deliberately targeted to
cause the most damage to civilians. At least 742 civilians were killed and 4,899 were
wounded by suicide bombings in Israel and Palestinian territories (Dodd, 2013, para. 47).
Kaplan, Mintz, and Mishal (2006) noted that suicide bombings were the leading cause of
death from terrorism in Israel. Although terrorists often choose symbolic targets, they
target high trafficked areas when the opportunity arises (Ganor 2015). Ganor (2015)
argued that terrorists often select their targets based on their assessment of potential
attack consequences in terms of loss of life, injuries, economic, and other costs.

Due to the threat of suicide bombing in the United States and other countries,
Perry et al. (2013) created a method for predicting determinants of suicide bombing
attacks. Perry et al. examined suicide bombings in four Israeli cities: Jerusalem, Haifa,
Tel Aviv, and Netanya. The researchers focused on three terrorist groups: Hamas, alAsqa Martyrs' Brigade, and the Palestinian Islamic Jihad. In their aim to discover

terrorist group target preferences in suicide terrorism, Perry et al. examined spatial preference patterns; specifically, how terrorist groups develop target preferences and the transferring of these preference patterns. In addition, the researchers examined sociocultural, socioeconomic, demographic, and political aspects of the suicide attacks. The researchers found several commonalities between previous suicide bombings, where attacks were significantly correlated with Jewish holidays, when the Israeli Defense Forces (IDF) conducted operations, and when political negotiations were taking place among Israeli and Arab leaders. The researchers related that attacks following IDF operations were more of a revenge tactic from terrorists due to an arrest or assassination of a known terrorist. The researchers noted that attacks that have occurred when political negotiations were taking place may be attributed to terrorist need for conflict, to prove their presence, and remind Israelis that the war was not over just because negotiations were taking place.

Findings also indicated that there were similarities among the suicide bombing locations where suicide attackers targeted accessible crowds (Perry et al., 2013). Perry et al. (2013) emphasized that groups were not randomly targeted and over one-third (36%) of attacks were repeat strikes on locations that were previously attacked (p. 47). Thus, past attack locations should be considered very high risk for future suicide attacks. Along with places where people congregate, places that were well known were often attacked such as main shopping areas, streets for shopping and entertainment, and iconic locations.

# **After Attack Responses**

Law enforcement response can also be an influential factor in how individuals or groups choose their targets. Based on historical emergency responses, many individuals who engage in terrorist activities consider precise timing, communication, and state or federal responses (Everbridge Organization, 2014). The Everbridge Organization (2014) evaluated the response of the Boston authorities to the 2013 Boston Bombings as satisfactory. Their findings highlighted that law enforcement officials in the area effectively conducted media briefings that relayed essential information between law enforcement and Boston residents. These briefings included key information on the safety measures to be taken by civilians such as staying in their homes and reporting anything that may be classified as unusual. The Everbridge Organization reported that there was unconditional cooperation among networks and sources that allowed everyone to be informed as the incident progressed. The Everbridge Organization highlighted law enforcement's exceptional communication efforts, networking connections, and execution plan used in the Boston Bombing response. Therefore, Boston law enforcement used their extensive planning and preparation in their response to this emergency by effectively executing the search for perpetrators. In addition, the Everbridge Organization related that law enforcement demonstrated the importance of staying connected among networks and authorities during the emergency, and maintaining strong communication between networks and residents.

Similarly, other researchers highlighted Boston first responders' multidimensional preparedness. Leonard, Cole, Howitt, and Heymann (2014) discussed Boston authorities' strong execution in terms of their command and coordination as the attack was taking place as well as the immediate aftermath of the attack. The researchers noted that the level of response by the authorities, including constantly providing instructions and updating citizens, helped to maintain a state of general composure. In addition, the communication efforts expanded beyond the authorities and included the private sector. Leonard et al. related that the private sector protocol among businesses allowed for additional assistance to Boston residents. Furthermore, the researchers explained the effectiveness of the established emergency plans that were implemented by the authorities. Thus, effective emergency planning allowed for the best possible outcome with the least amount of casualties and inefficiencies. Leonard et al. noted that a well-planned level of response is crucial to minimizing damage in the event of a future attack.

#### **Lone Wolf Suicide Attacks**

Before an attack, it is often difficult to detect terrorists who operate without a terrorist organizational support, network, or support from other people (Zierhoffer, 2014). Zeirhoffer (2014) reported that research on lone offender terrorism is limited as focus has been placed on terrorist organizations. The researcher noted that there is no profile that would predict a lone offender terrorist attack. Spaaij (2010) defined lone wolf terrorism as terrorist attacks that are carried out by individuals who operate alone, who are not affiliated with an organized terrorist group or network, and whose methods are created

and directed by the individual without any direct outside command or hierarchy. Spaaij analyzed the main features of lone wolf terrorism as well as the trends in 15 countries. The researchers found that lone wolf terrorism accounted for 1.28% of all terrorist incidents in the 15 countries (p. 866). Spaaij found that lone wolf terrorism is comparatively prevalent in the United States, where it has significantly increased during the past 3 decades. Unlike the United States, there was no significant increase in the other 14 countries, which were the United Kingdom, Germany, France, Spain, Italy, Poland, Netherlands, Denmark, Sweden, Czech Republic, Portugal, Russia, Canada, and Australia. The researcher noted that in the 15 countries, the number of casualties has been limited and no evidence was found to indicate that the lethality of lone wolf terrorism is on the rise. In addition, the researcher found no empirical evidence that lone wolf terrorists are among the most likely individuals to use weapons of mass destruction.

It is difficult to monitor lone attackers because they are not tied to any organization that is already under surveillance (Zierhoffer, 2014). Zierhoffer (2014) related that lone wolf attackers do not need much for expenses and they have had much success. Using Borum, Fein, Vossekuil, and Berglund (1999) threat assessment model, Zierhoffer assessed the model's value as a predictor of terrorism using three lone wolf attackers: Theodore Kaczynski, Eric Rudolph, and Abdulhakim Mujahid Muhammad who was born as Carlos Bledsoe. The researcher noted that Kaczynski, known as the Unabomber, was sentenced to life in prison for mailing 16 package or letter bombs that killed three people and injured 23 others over 18 years (p. 54). Rudolph was sentenced to

multiple life sentences without parole for killing two people and injuring more than 100 others in four separate bombing, including a pipe bomb at the 1996 Summer Olympics in Atlanta (p. 55). Muhammad was convicted of capital murder, attempted capital murder, and 10 weapons-related charges after shooting two soldiers outside of the Little Rock Recruiting Station. Zierhoffer found that the 10 questions by Borum et al. in their threat assessment model, when slightly modified to reflect behaviors that are consistent with terrorism, expanded efforts to identify a lone wolf terrorist by focusing on thoughts and behaviors that may be indicative of terrorist activity. Thus, the model not only focuses on the demographics or characteristics of a potential terrorist, but also focuses on behaviors that could indicate the movement of the individual toward achieving a goal. Zierhoffer analysis of the threat assessment model also provided a foundation for further research for a model that would prevent lone wolf terrorism.

President Obama expressed confidence in U.S. intelligence officials' ability to prevent large terrorist attacks; however, President Obama warned that it may be difficult for officials to track and prevent lone wolf attacks like the one that occurred in Boston (Easley, 2013). Deloughery, King, and Asal (2013) analyzed lone wolf terrorism in relation to two related behaviors: (a) group-based terrorism and (b) violent hate crimes. The researchers noted that assessments that compared lone wolf terrorism to other forms of violence are sparse. Deloughery et al. examined the timing, locations, methods, targets, and geographic distributions of lone wolf terrorist attacks, group-based terrorist attacks, and violent hate crimes that took place between 1992 and 2010. Terrorism data were

obtained from the GTD and hate crime data were obtained from the Federal Bureau of Investigation's (FBI's) annual hate crime statistics files.

Findings indicated that lone wolf terrorism is not identical to group-based terrorism or violent hate crimes; however, it does share some similarities with each (Deloughery et al., 2013). Deloughery et al. (2013) found a moderate correlation between year-to-year changes in lone wolf terrorism with group-based terrorism. However, no correlation was found between year-to-year lone wolf terrorism and violent hate crimes. Lone wolf terrorism was higher in less populous states such as New Mexico, Nebraska, and Iowa than violent hate crimes and group-based terrorism. Approximately 50% of lone wolf terrorist attacks were related to abortion compared to 17% of group-based terrorist attacks (p. 1). In contrast, 6% of lone wolf terrorist attacks were directed at businesses compared to 27% of group-based terrorist attacks (p. 1). Lone wolf terrorism tends to occur in counties with larger populations, lower levels of home ownership, and higher percentages of Caucasians, which is similar to group-based terrorism and violent hate crimes. However, in contrast to group-based terrorism and violent hate crimes, lone wolf terrorism is not more likely to take place in counties with a higher percentage of residents living in urban environments, higher percentages of male residents between 15 and 24 years of age, or higher unemployment rates. The researchers found that the location where lone wolf terrorism takes place tend to have more demographic similarities with the location of violent hate crime offending than with group-based terrorism.

In Israel, the recent wave of terrorist attacks has been mostly stabbing and shooting events that are normally carried out by individuals, who have been called *lone* wolves (Shaked, 2016). Shaked (2016) reported that as of September 13, 2015, 30 individuals have been killed and approximately 350 individuals have been injured (para. 3). Shaked shared that the attacks involved 170 stabbings and attempted stabbings, as well as 70 shootings and 30 vehicular ramming attacks (para. 3). Shaked related that the current wave of terrorist attacks is different from previous periods of Palestinian uprising as the attacks are unguided and unorganized, and are being carried out by lone wolf terrorists as young as 13 to 15 years of age (para. 3). The author noted that most are from East Jerusalem and other parts of Judea and Samaria. Shaked shared that these lone wolf terrorists are not directed by any organization, but instead are inspired by intensive incitement from the local media or social networks. The author noted that the attacks were designed to be an expression of popular resistance; hence, the attackers used weapons such as knives, scissors, and screwdrivers in most of the incidents. Most attackers were killed at the scene by a soldier, law enforcement personnel, or a civilian bystander.

Lone wolf terrorist attacks in Israel require a change in certain aspects of the counterterrorism approach (Shaked, 2016). According to Shaked (2016), there is a lack of intelligence to prevent such attacks; however, such attacks can be decreased or prevented through the use of education, influence through social networks, and the identification of possible attackers who mention their intentions on websites. Due to the difficulty in

knowing when the next attack will take place, Shaked related that counterterrorism actions involved increasing security personnel such as police officers, border police, and military personnel at major junctions, crowded places, and near Jewish communities in Judea and Samaria. Citizens have also been encouraged to learn easy ways to thwart an attack and those who have license to carry weapons are encouraged to do so. Shaked emphasized that the medical aspects of lone wolf terrorist attacks are different from past suicide bombings. Therefore, the author argued that the right adjustments from medical providers and domestic preparedness are needed to improve the medical response to the injuries that have been inflicted in the attacks. Shaked further argued that the main cause of death in penetrating trauma is hemorrhage; thus, first responders and medical personnel should refresh their knowledge and skills in order to provide the best level of care.

#### **Lessons Learned From Terrorist Attacks**

The strategic understanding of how a suicide attack is executed requires extensive research and the ability to define and establish connections in the study of prior attacks. Studying and understanding the outcomes of previous attacks allow CTOs the ability to establish emergency plans for future attacks. For example, Boston authorities had established an emergency plan that effectively minimized the damage done to the city during the 2013 Boston Bombing (Everbridge Organization, 2014). Leonard et al. (2014) analyzed how prior preparation and action contributed to the effectiveness of the response of the 2013 Boston Marathon Bombing, as well as aspects of the response that were not

as effective. The researchers found that response organization leaders in Boston performed detailed and meticulous planning each year for many events like the Boston Marathon Bombing. In addition, Leonard et al. found that senior leaders showed effective use of the spirit and core principles of the National Incident Management System (NIMS), which Congress mandated in 2002. NIMS is a systematic, proactive approach that is used by department and agency leaders at all governmental levels as well as in nongovernmental organizations and the private sector, with the goal of working seamlessly to manage incidents that involve all threats and hazards (Federal Emergency Management Agency [FEMA], 2016). The aim of this approach is to reduce the loss of life, property, and environmental harm (FEMA, 2016). On the other hand, Leonard et al. noted that while there were many positive dimensions of interorganizational collaboration in the Boston response, there were also some difficulties, such as microcommand with leadership and coordination at the street level when individuals and small teams from various organizations came together and needed to operate together. Thus, more work was needed with integrating NIMS into the practices and cultures of emergency response agencies, especially at the tactical operational level.

Other lessons were learned from the Boston Marathon Bombing. McCaul et al. (2014) examined Tsarnaev's personal history, his interactions with federal agencies, his radicalization, the 2011 threat assessment that was carried out by the FBI, and his 2012 travel to Russia. In addition, the researchers explored missed opportunities that could have prevented the bombing. McCaul et al. found that there was not enough cooperation

and information sharing between federal agencies and local law enforcement agencies. The researchers also found that there was limited communication between federal agencies. In addition, there were not enough resources available to properly screen outbound travelers whom the federal agencies were interested in. McCaul et al. also noted a failure to revise inaccurate or incomplete records that were held by different agencies. First, the researchers recommended an increase in information sharing between federal intelligence agencies and local law enforcement agencies as well as tribal law enforcement agencies. Second, McCaul et al. recommended a revision of agreements on task force officers (TFOs) in order to create more open and collaborative relationships. Third, the researchers recommended an increase in the examination of international travelers with a treasury enforcement communications system (TECS) alert on their name as they leave the country.

The fourth recommendation was an improvement in the TECS alert notifications and records; thus, ensuring that the FBI case agents on each assessment where a TECS alert is placed on an individual also receives these notifications (McCaul et al., 2014). In addition, each time a TECS alert was shared, McCaul et al. (2014) recommended the use of a written detail record about when, how, and with whom this alert was communicated. Fifth, the researchers recommended a review of the terrorist screening database (TSDB) nominations as a more accurate and complete TSDB record for Tsarnaev might have resulted in greater scrutiny when he returned to the United States. Sixth, the researchers encouraged cooperation and assistance from the community as no one stepped forward

based on the public appeal for information regarding the suspects. McCaul et al. noted that 56% of the country had never heard of the "If you see something, say something" campaign (p. 36). Thus, in preventing terrorist attacks, the researchers emphasized the importance of ensuring that residents are alerting their local police or federal authorities to suspicious behavior or other possible indicators. Seventh, McCaul et al. recommended an end to the case closed mentality due to the concern that officials believed that the attack could not have been prevented. The researchers claimed that this was the most difficult problem to address, which requires a delicate balance with ensuring that investigators and counterterrorism professionals are confident but appropriately critical.

Since the late 1960s, the two most successful strategies for ending terrorist groups have been policing or the initiation of a political process (IEP, 2014). The IEP (2014) related that the use of these strategies resulted in over 80% decrease of terrorist organizations that stopped operation (p. 3). The IEP reported that 10% of terrorist groups achieved their goals and 7% were eliminated through fully military engagement (p. 3).

# **Counterterrorism Operations and Methodologies**

Due to the prevalence and frequency of terror acts, counterterrorism professionals have analyzed previous attacks and developed counterterrorism strategies from their findings. Butterworth et al. (2012) reported that public surface transportation is a main target for terrorists throughout the world. The researchers related that the Mineta Transportation Institute (MTI) database on terrorist and serious criminal attacks against public surface transportation

between January 1, 1970, and January 23, 2012, where 7,997 people were killed and 30,046 were injured (p. 1). Butterworth et al. noted that 47.4% of these attacks were against buses, bus stations, and bus stops; accounting for 55% of the fatalities and 41% of the injuries resulting from terrorist attacks during this period (p. 1). The researchers examined 16 of the numerous attacks that were planned or carried out against the public bus system in Israel, including the West Bank and Gaza, during the Second Intifada where major rioting and civil unrest took place from 2000 to 2006. The researchers underscored the important role of bus drivers in the prevention and mitigation process and noted that the more successful attacks involved a lack of proper security protocols. In addition, Butterworth et al. discussed the importance of additional security presence at bus stops. There are similarities between Butterworth et al.'s, Medby and Glenn's (2002), and Baker's (2005, 2006) methodologies in recognizing the intentions of attacks on public transportation and they recommended appropriate damage prevention and mitigation measures. Butterworth et al. noted that prevention and mitigation measures are most effective when complex security tactics are used, which creates a deterrent effect. Thus, Butterworth et al. noted that security efforts should not be routine or pattern oriented, but unpredictable to stop terrorist actors.

In preventing terrorist attacks, it is important to gather accurate information to prevent a future attack (Mazumdar, 2012). Mazumdar (2012) claimed that terrorism is a law enforcement problem as well as an intelligence matter; therefore, the prevention of terrorist acts requires complete coordination between law enforcement and intelligence

officials. The researcher noted that human intelligence (HUMINT), who may be informants or agents, is the single most significant source involved in thwarting a potential attack due to the secrecy and anonymity elements found in terrorist groups or lone wolf assailants. Mazumdar related that the resources available to terrorists for an attack are very limited and very challenging to detect. Mazumdar postulated that it is vital to know about terrorist groups' capabilities to carry out its intentions so that law enforcement and intelligence officials can effectively create an adverse environment for terrorists.

Some terrorists' motivation may be attributed to the military being employed to suppress and prevent attacks. Counterterrorism is a principle of counterinsurgency (COIN) operations, which refers to military action taken against guerillas or revolutionaries and has mixed results in terms of long-term effectiveness (Greenhill & Staniland, 2007). Greenhill and Staniland (2007) approached the challenges faced by counterterrorism strategies by focusing on counterterrorism methodologies. The researchers reported that COIN can frequently include practices that either prevent future terrorism or cause it. Coercion tactics might yield a short-term victory, but the long-term effects of the resentment and anger that resulted as a consequence of brutality and suppression cannot be underestimated. In addition, the researchers argued that these tactics can sometimes create a fertile ground for individuals who resort to terrorism. Furthermore, Greenhill and Staniland noted that the mental state of those who live in this environment and use suicide terrorism as a response to a much stronger opponent may be

correlation with the tactics employed in the area. According to Greenhill and Staniland, both COIN tactics and strategies involving combating terrorism involve a noticeably sensitive process that may result in creating heightened extremist ideals among those involved in the use of terrorist tactics rather than stopping them. Individuals conducting counterterrorist activities should consider an underlying premise, namely the in-depth study of the nature and results yielded by COIN operations as such detailed research is indispensable for possibly preventing future incidents involving suicide terrorism.

Although Landree et al.'s (2007) ModIPB framework and Freeman et al.'s (2010) nine preattack phases indicated a specific step-by-step framework that potential terrorists use, Paul and Landree (2008) noted that there is no simple linear outline for planning a terrorist attack. Paul and Landree related that groups and individuals involved in terrorism activities focus on assessing avenues of approach and ease of access, target features (e.g., location to launch attack, times to launch and window of opportunity, and mobility of target), security (e.g., forces, security measures, and other population groups present), and threats to the terrorist operation. However, Paul and Landree stated that the needs of terrorist groups may differ from one another, thus, their strategies and methodologies may vary. The authors argued that instead of establishing an assumed pattern of attack, defenders control the attack planning process by protecting essential information concerning the infrastructure or the target. This strategy allows the individuals and governments combating terror attacks to gather a more concrete set of parameters regarding what terrorists are likely to search for; hence, they are better able to

identify targets that may be at risk and adjust their defenses accordingly (Paul & Landree, 2008). Consequently, Paul and Landree noted that controlling the flow of information improves security and limits terror attacks.

Due to the tragic events of 9/11 and the increasing complexity and irregularity of terrorist threats to national security, there have been a lot of research and development on the application of advanced information technology to help in the analysis, anticipation, and countering of these threats (Weinstein, Campbell, Delaney, & O'Leary, 2009). Weinstein et al. (2009) counterterror social network analysis and intent recognition (CT-SNAIR) work focused on the development of automated techniques and tools for detecting and tracking of terrorist networks that often changes as well as recognizing their capability and intent. Therefore, the CT-SNAIR system framework provide a means to detect, model, and simulate security threats from multimedia data collected from the Internet and adversary videos (Weinstein et al., 2009). Weinstein et al. noted that based on minor leads to potential terrorist activity, analysts are able to build comprehensive social networks to track targeted groups and threats. The researchers focused on the development of automated recognition of terrorist capabilities and intent based on consistent tasks that the adversary must complete for attack execution. Weinstein et al. suggested that research should focus on the development of both real and simulated data sets and algorithms to be used in recognition programs.

### **Summary and Conclusions**

The 9/11 suicide attacks illustrated the ingenuity that suicide terrorist groups display in planning and executing their missions (Hoffman, 2002). According to Hoffman (2002), security concern pertaining to the use of firearms and explosives led the 9/11 attackers to use household items that were not considered to be an on-board threat, such as box cutters, while the planes were used as incendiary weapons. Therefore, Hoffman, highlighted that the deadliest terrorist attack in history involved no guns or explosives.

Israel as one of the 13 countries that are at risk for increased terrorist activity (IEP, 2004, p. 4). When examining suicide attacks, it is important to first identify and understand the motivation of individual attackers and reasons for executing the suicide mission (Pape, 2008). Second, Pape (2008) related that by understanding the terror networks and the organization that identifies and recruits suicide attackers, CTOs can identify factors that recruitment cells have used for the key player within the suicide operation. Fox (2014) related that the most crucial element in law enforcement's ability to successfully stop and mitigate terror threats is to study adversary planning; specifically, the phases the adversary must accomplish in order to successfully execute an attack. Fox related that the recruitment of future suicide bombers is part of the early planning phase, while Freeman et al.'s (2010) related that there are additional tasks in the preattack phases that consistently emerge in the adversary planning process.

Therefore, there is a gap in the literature that focuses on the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in

the adversary planning process for each adversary success or failure in Israel suicide bombing cases. In this multiple case study, I addressed this gap using Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s nine preattack phases. By focusing on the early planning phases of terrorist attacks, decision makers and CTOs are better able to identify essential opportunities to prevent suicide attacks from occurring (Fox, 2014). In Chapter 2, I included the introduction, literature search strategy, conceptual framework, background of terrorist attacks, suicide attackers, suicide attack, lone wolf suicide attacks, lessons learned from terrorist attacks, counterterrorism operations and methodologies, and a summary and conclusions. In Chapter 3, I include the research design and rationale, role of the researcher, methodology, issues of trustworthiness, and a summary. In Chapter 4, I include the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and a summary. In Chapter 5, I include the interpretation of findings, limitations of the study, recommendations, implications, and a conclusion.

### Chapter 3: Research Method

In this multiple case study, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). Then using purposeful random sampling, I selected three successful and three failed suicide attack cases from the cases that met the study's selection criteria. I collected data using a researcher-created terrorist activity data collection worksheet (see Appendix B), a researcher-created site data collection worksheet (see Appendix C), and a researcher-created questionnaire into suicide bombing events (see Appendix D). NVivo was used to manage the data. Data were analyzed using two stages of analysis in case study research: (a) within-case analysis or single-case analysis and (b) cross-case analysis. The study was conducted in accordance with Walden University's IRB guidelines. The IRB approval number was 11-18-16-0108044. In Chapter 3, I include the research design and rationale, role of the researcher, methodology, issues of trustworthiness, and a summary.

# **Research Design and Rationale**

In this section, I present the research question for this multiple case study. I also discuss the multiple case study research design rationale. This section is organized in the

following subsections: research question and multiple case study research design rationale.

# **Research Question**

In this multiple case study, I addressed one central research question: What are the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel?

### Multiple Case Study Research Design Rationale

I chose a multiple case study research design because it enabled me to delve into the topic and explore specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. I considered all possible research methodologies, which include mixed methods, quantitative, and qualitative research methods (Mertens, 1998). I considered a mixed methods approach for this study; however, I did not choose this method because it requires various views as a practical and natural approach to research (Guest, MacQueen, & Namey, 2012). A mixed methods approach was not needed to answer this study's central research question. Johnson (2006b) noted that a quantitative design focuses on the relationship among variables (Johnson, 2006b). A quantitative approach was considered, but it did not align with the purpose of this study. Tellis (1997) reported that a qualitative approach allows for the

development of a rich, complex, and holistic understanding of the research problem. In this study, I applied a qualitative research method.

Five qualitative research designs were considered, which include case study, phenomenology, narrative, grounded theory, and ethnography (Guetterman, 2015). A multiple case study research design was chosen after an in-depth review of the five qualitative designs. Yin (2009) defined a case study as an empirical inquiry about a contemporary phenomenon, such as a case, that is set within its real-world context, mainly when the boundaries between phenomenon and context are not clearly evident (p. 4). A multiple case study research design was selected because it allows the researcher to explore differences within and between cases, and the goal is to replicate findings across cases (see Baxter & Jack, 2008). Yin (2003) related that it is crucial that the cases are selected carefully so that the researcher can predict similar results across cases. Stake (1995) related that case studies are usually bounded by time and a set of activities.

In this multiple case study, data collection were bounded by three successful and three failed Israel suicide bombing cases from 2000 to 2010. Yin (2014) noted that in a case study, there are many more variables of interest than data points, and multiple sources of evidence are used. Yin further related that data need to converge in a triangulating fashion. In this study, six suicide bombing cases were used: (a) three successful suicide bombing cases and (b) three failed suicide bombing cases from 2000 to 2010. I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the

35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). Then using purposeful random sampling, I selected three successful and three failed suicide attack cases from the cases that met the study's selection criteria. I used a researcher-created terrorist activity data collection worksheet to collect archival data from the private intelligence company's database in Israel on the six cases (see Appendix B). I used a researcher-created site data collection worksheet to collect data at each site of the three successful and three failed suicide bombing attack locations (see Appendix C). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public data that was written or on the Internet about the six cases (see Appendix D).

#### Role of the Researcher

The role of the case study researcher includes being a teacher, advocate, evaluator, and biographer (Stake, 1995). Stake (1995) claimed that from a constructivist perspective, the roles of interpreter and gatherer of interpretations are central. Stake argued that the goal of research is to build clear and sophisticated realities that can withstand skepticism. I served as a participant-observer during the data collection process, using multiple sources in this multiple case study. Therefore, I was a key instrument in the qualitative data collection process. I collected all data, which included collecting data using the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events. I transcribed the data, coded and analyzed the

data, and interpreted the findings. Thus, I followed specific procedures for data collection and analysis to ensure the trustworthiness of this study.

I am the CEO of the private intelligence company in Israel where the case study data were obtained. I conducted an ethical research study that relied on the community partner's cooperation and data use agreement. Therefore, I obtained cooperation of the board members and permission to use the suicide bombing attack data in the company's database. I informed the board members that my role is separate from that of the CEO as the company is not sponsoring the study. While conducting the study, I used specific strategies such as reflexivity where I revealed any experiences, biases, and values pertaining to specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Lincoln and Guba (1985) noted that a reflexive journal helps to prevent biases as the researcher makes regular entries during the research process. In these entries, I recorded methodological decisions and the reasons for them, the logistics of the study, and reflected on what was happening in terms of my own values and interests. After the study is completed and approved, I will e-mail a summary report of the research findings to the private intelligence company's board members. I will keep all data secure for at least 5 years per Walden University's IRB guidelines. After 5 years, I will properly destroy the data using techniques such as shredding.

### Methodology

In this section, I discuss the methodology. Sufficient depth is provided so that other researchers can replicate the study. This section is organized in the following subsections: participant selection logic, instrumentation, procedures for recruitment, participation, and data collection, and data analysis plan.

# **Participant Selection Logic**

I used a combination or mixed purposeful sampling, which included maximum variation sampling and purposeful random sampling. Patton (2001) related that using more than one sampling strategy meets multiple interests and needs. Patton reported that maximum variation sampling is used to select a wide range of variation on dimensions of interest. The purpose of maximum variation sampling is to discover or uncover central themes, core elements, and shared dimensions that cut across a diverse sample while at the same time offering the opportunity to document unique or diverse variations.

Flyvbjerg (2004) noted that maximum variation is used to obtain information about the significance of various circumstances for case process and outcome, example, three to four cases that are very different on one dimension, such as the location, size, form of organization, and budget. Cohen and Crabtree (2006) shared that when using a maximum variation sampling, the researcher selects a small number of cases that maximize the diversity relevant to the research question.

On the other hand, purposeful random sampling adds credibility to a sample when the potential purposeful sample is larger than what the researcher can handle (Patton, 2001). Patton (2001) related that while purposeful random sampling is a type of random sampling, a small sample size is used; therefore, the goal is credibility and not representativeness or the ability to generalize. Patton further noted that purposeful random sampling is used to prevent potential selection bias.

Using both maximum variation sampling and purposeful random sampling, the six cases were chosen based on the study's selection criteria. One criterion was successful and failed suicide attacks that occurred from 2000 to 2010 in Israel. The criteria for successful attacks included the death of the suicide attacker along with the death of at least one civilian victim. The criteria for failed attacks were that the suicide attacker was not killed, no civilians were killed, or the suicide attacker was killed before any civilians could be killed. The attack site for each of the case studies was a soft target, such as in urban settings and civilian population. Soft targets can include commercial and private sectors as well as other targets such as areas or events where the public attends, which are under minimal security, such as schools and open public marketplaces. Soft targets exclude military-related settings and bases, convoys, or checkpoints. The cases chosen had sufficient data available so that I was able to gather data on Freeman et al. (2010) nine phases. Using archival data of suicide bombing attacks from the database of a private intelligence company in Israel, three successful and three failed suicide attacks from 2000 to 2010 were chosen using purposeful random sampling after meeting the other selection criteria. The cases had as much variation as possible, such as the location, size of the attack, and successful and failed attacks. Intentionally including cases of

different types allowed me to analyze these cases using single-case analysis and crosscase analysis to see if they fit the larger, overall patterns.

Saturation is the point in data collection where the collection of new data does not shed any further light on the issue under investigation (Glaser, Strauss, & Strutzel, 1968). The TESOL International Association (2016) reported that case study research often includes a single-case or multiple-cases, which often involves two to four cases. The relationship between saturation and sample size was sufficient in this multiple case study because I used purposeful random sampling to select six cases (three successful and three failed suicide bombing attacks) in order to obtain the richest data possible. I used a random number generator, such as the one provided by GraphPad Software (2016). The richness of case studies is related to the amount of detail and contextualization that is possible when only one or a small number of focal cases and issues are analyzed (TESOL International Association, 2016). From 2000 to 2010, 35 suicide bombing attacks occurred in Israel; hence, the six cases represented 17% of the attacks that occurred during the 2000 to 2010 timeframe.

#### Instrumentation

A case study relies on multiple sources of evidence to present a rich picture of the phenomenon under investigation (Yin, 2014). Case studies benefit from having multiple sources of data, such as archival records, direct observation (e.g., physical environment), and documents (Yin, 2012), all of which were used in this study. I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack

cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). Then using purposeful random sampling, I selected three successful and three failed suicide attack cases from the cases that met the study's selection criteria. The researcher-created terrorist activity data collection worksheet, which was based on Freeman et al.'s (2010) nine preattack phases, was used to collect archival data from the private intelligence company's database in Israel on the six cases (see Appendix B). I used a researcher-created site data collection worksheet to collect data at each site of the three successful and three failed suicide bombing attack locations (see Appendix C). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public data that was written or on the Internet about the six cases (see Appendix D). Yin (2012) discussed the use and importance of a case study protocol where a set of questions are addressed while collecting the case study data in the field setting or at the researcher's desk when extracting information from archival sources. Yin related that questions in the protocol are directed at the researcher and not at field participants. Therefore, the researchercreated terrorist activity data collection worksheet, researcher-created site data collection worksheet, and the researcher-created questionnaire served as the case study protocol.

Archival data and documents. I used a researcher-created terrorist activity data collection worksheet to collect archival data from a private intelligence company's database in Israel on the six cases (see Appendix B). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public

data that was written or on the Internet about the six cases (see Appendix D). Yin (2012) related that archival data, such as those stored in electronic records, libraries, and paper files are a common source of evidence in case studies. Data can also be collected from newspapers, television, and mass media. In addition, data can be obtained from records that are maintained by public agencies, such as law enforcement or court records. Yin warned that archival data or documents can be subjected to their own biases or shortcomings, therefore, steps should be taken to counteract them. For example, with mass media, Yin suggested that the researcher selects two different media that are believed to have opposing orientations, which will allow a more balanced picture to emerge.

Site data collection worksheet. I used a researcher-created site data collection worksheet to collect data at each site of the three successful and three failed suicide bombing attack locations (see Appendix C). Yin (2012) discussed direct observations in a field setting and noted that such observations can focus on the physical environments, real-world events, or human actions. Yin related that such observations are one of the most distinctive features in doing case study research. According to the researcher, direct observations can take place by using a formal observational instrument and then noting, rating, or reporting the observational evidence under the categories specified by the instrument. However, Yin also discussed the use of a case study protocol, which differs from instruments used in surveys and interviews. Yin related that the protocol questions serve as a mental framework for the researcher.

The availability of data from the different sources creates an important opportunity during case study data collection (Yin, 2012). Yin (2012) recommended that the researcher constantly checks and rechecks the consistency of the findings from different and similar sources. As a result, the researcher triangulates or establishes converging lines of evidence, which make the findings robust.

# Procedures for Recruitment, Participation, and Data Collection

I completed the National Institutes of Health (NIH) Office of Extramural Research human research protections training before beginning data collection (see Appendix E). I also abided by all U.S. and Israel federal research regulations, which included obtaining the community partner's cooperation and data use agreement before using the private intelligence company's data. I wrote a letter to the board members of a private intelligence company in Israel, describing the research project and asking permission to use their suicide attack archival data for Israel from 2000 to 2010 and I also sent them a data use agreement. A cooperation letter and signed data use agreement were received from the board members, which were provided to Walden University IRB as two of the supporting documents. The documents have been redacted to protect the private intelligence company's identity.

After receiving approval to conduct the study from Walden University IRB, I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). From the case that

met the study's selection criteria, I used purposeful random sampling using a random number generator to select three successful and three failed suicide attack cases. After selecting the six cases, I used a researcher-created terrorist activity data collection worksheet to collect archival data from the private intelligence company's database in Israel on the six cases (see Appendix B). I visited the site of each of the six suicide bombing cases and I used a researcher-created site data collection worksheet to collect data at each site (see Appendix C). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public data that was written or on the Internet about the six cases (see Appendix D). All data were properly transcribed.

After the study is completed and approved, a summary report of the research findings will be e-mailed to the private intelligence company's board members. I will keep hard copy data and any flash drives secure in a locked file cabinet and password protected computer, and I will be the only one with access to the records. I will keep the data for at least 5 years based on Walden University's IRB guidelines.

### **Data Analysis Plan**

Unlike qualitative studies, data analysis in qualitative research is an ongoing process of applying inductive reasoning as opposed to the deductive reasoning (Mayring, 2000). The information from the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events were all properly transcribed and data were managed with NVivo. NVivo is a data management tool that is used to organize

data (Jabbar, 2015). NVivo helps the researcher to index segments of text to particular themes, link research notes to coding, carry out complex search and retrieve operations, and helps the researcher in examining possible relationships between the themes (King, 2004). Jabbar (2015) noted that advantages of NVivo include the ability to collect and archive almost any data type and connect to the researcher's transcribed data, it searches large data sets, and creates codes to identify patterns. Data were coded and analyzed. The data analysis plan is discussed in further detail below and is organized in the following areas: central research question categories for analysis and two stages of analysis and discrepant cases.

Central research question categories for analysis. Coding by means of categories is often used by researchers in qualitative studies to group consistent responses and summarize significant ideas to identify themes and differences between the stories of the participants (Denzin & Lincoln, 1994). Coding categories that were used for the central research question were Freeman et al. (2010) nine preattack phases, which are as follows (p. 77):

- Networking and indoctrination: In this phase, cell members are introduced and exposed to radical doctrine through various events, such as religious instruction, meeting, cohabitation, and social activities.
- 2. Terrorist training: This phase often overlaps with phase one and include cell members' participation in organized terrorist activities.

- 3. General planning: In this phase, the decision to conduct a terrorist attack is made as well as the choice of a general target area or target set, such as ships, bars, U.S. citizens, and soldiers. In addition, general shopping for potential targets is performed.
- 4. Recruitment: In this phase, senior terrorist elements select and activate cell members for a certain terrorist operation. Similar to 9/11, it is assumed that there is a senior element that helps with recruitment and personnel selection. However, in the terrorist group that carried out the attacks on the London mass transit system on July 7, 2005, also called 7 July attacks or 7/7 attacks, this may not have been the case (Freeman et al., 2010; Ray, 2016).
  Nevertheless, Freeman et al. noted that in groups like this, a recruitment and selection process still occurs as preexisting groups of friends and acquaintances go through the radicalization process that results in a group committed to an attack.
- 5. Financing: In this phase, funds are collected and allocated for a certain terrorist attack. For example, the money came before the decision to conduct an attack was made when a cell within the al-Qa'ida network carried out the attack on the U.S. Navy ship Cole on October 12, 2000 (Freeman et al., 2010; Pearl & O'Rourke, 2001).

- 6. Operational planning: In this phase, the specific target is selected, detail reconnaissance of the target is conducted, and specific operation planning takes place such as the delivery and procurement methods.
- 7. Weapons procurement: In this phase, materials for the construction of explosives or weapons that will be used in the attack is obtained or received, such as accelerants, detonators, fertilizers, and rockets.
- 8. Logistical preparation: In this phase, logistical actions are taken in order to prepare for the terrorist attack, including safe house rental, vehicle and document procurement, and electronics purchase.
- Operational preparation: In this phase, physical preparations for the imminent terrorist attack takes place, including explosive construction, vehicle alteration, specific explosives training, and multimedia preparation and creation.

Two stages of analysis and discrepant cases. Based on Strauss and Corbin's (1998) coding process, the overall coding process started with open coding that involves defining line by line the actions and events with data. I was then able to discover, name, and categorize the phenomena according to properties and dimensions. The axial coding process helped me to establish theoretical and conceptual connections in the multiple sources of data. Finally, selective coding helped to systemically validate the relationships by searching for and confirming examples in the presentation of the data.

More specifically, Merriam (2009) described two stages of analysis in case study research. The first stage is a within-case analysis or single-case analysis in which each case is treated as a comprehensive case (p. 204). For this study, each successful and each failed suicide bombing attack case was analyzed separately. Level 1 analysis of the six cases included coding and categorization of all data from the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events. The coding process followed Strauss and Corbin's (1998) coding process, which included line-by-line identification of free codes. Level 1 coding analysis continued with axial coding in which common themes and patterns were condensed and categorized. All documents were analyzed using content analysis, which involved a description of the purpose of the documents, the organization and scope of the topics, and the use of the documents.

The second level of data analysis involved a cross-case analysis. Yin (2009, 2014) and Merriam (2009) believed the second level of data analysis is dependent on theory development or the development of theoretical propositions that helps to focus on certain data and ignore other data. Coded and categorized data were examined across all sources of data for the three successful suicide bombing attack cases and the three failed suicide bombing attack cases to determine themes and discrepancies. Therefore, the three successful suicide bombing attack cases were analyzed using cross-case analysis. Then the three failed suicide bombing attack cases were analyzed using cross-case analysis.

Identifying and analyzing discrepant cases is a key part of the logic of validity testing in qualitative research. Instances that cannot be accounted for by a particular interpretation or explanation can point to important defects in that account (Maxwell, 2013). Patton (2001) related that often during data analysis, qualitative researchers may come across deviant cases that do not follow the main emerging patterns within their studies, which can lead to issues of trustworthiness if researchers do not handle such negative cases openly and honestly. Patton suggested that to increase trustworthiness, qualitative researchers may include in their report alternative explanations of why certain cases do not follow the main emerging patterns that surface in their studies. The constant comparative method was used to identify emerging themes, which were the basis for the findings of this study (see Merriam, 2009). I found no discrepant cases during data analysis. Findings in this study were presented in relation to the central research question.

# **Issues of Trustworthiness**

I organized this section in the following subsections: credibility, transferability, dependability, confirmability, and ethical procedures. According to Jeanfreau and Jack (2010), in quantitative studies, researchers often use reliability and validity when evaluating threats to their research while trustworthiness is used in qualitative studies. Trustworthiness pertains to how truthful the findings of the study are or the accuracy of the researcher's interpretation (Lincoln & Guba, 1985). Hence, researchers assess the trustworthiness of their study through credibility, transferability, dependability, and

confirmability (Cutcliffe & McKenna, 1999; Lincoln & Guba, 1985; Rodgers, 2008; Sandelowski, 1986; Streubert-Speziale, 2007).

### Credibility

Credibility is the qualitative counterpart to internal validity and pertains to the study's findings being believable or truthful (Polit & Beck, 2006; Sandelowski, 1986; Streubert-Speziale, 2007). Jeanfreau and Jack (2010) reported that strategies used to establish credibility include the use of multiple sources of data or methods and having repeated contact with participants, such as peer debriefing where questions are shared about the research process, obtaining additional perspectives on analysis and interpretation, and through the use of participant member checks in order to verify with participants if the findings is a correct reflection of their experiences. In this study, credibility was established by using triangulation where multiple data sources were used, specifically, the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events. Yin (2012) related that the researcher triangulates or establishes converging lines of evidence, which result in robust findings.

# **Transferability**

Transferability is the qualitative counterpart to external validity and pertains to the extent to which researchers can apply the findings of their study to other situations (Byrne, 2001; Merriam, 2009; Streubert-Speziale, 2007). Merriam (2009) noted that strategies to establish transferability include rich, thick description in reference to the

setting, the participants, and the findings of the study. It is also the responsibility of the qualitative researcher to describe the context of the study and its participants in detail so that the possibility of replication exists. Bitsch (2005) also discussed the use of thick description as well as purposeful sampling as strategies to establish transferability. To ensure transferability, I provided a rich description of the context of the study and used a combination or mixed purposeful sampling, which included maximum variation sampling and purposeful random sampling.

### **Dependability**

Dependability is the qualitative counterpart to reliability. Shenton (2004) recommended that the processes within the study should be reported in detail in order to enable future researchers to repeat the work, but it does not necessarily mean that same result will be obtained. In this study, dependability was established through the use of audit trails, which pertains to a thorough collection of documentation about all aspects of the research (see Rodgers, 2008). Documentation used in this study included detailed transcriptions of the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events. Therefore, the strategy of triangulation was also used by comparing these multiple data sources.

#### Confirmability

Confirmability is the qualitative counterpart to objectivity. To establish confirmability, Merriam (2009) recommended reflexivity, which is the process of

reflecting critically on the self as a researcher in order to maintain the integrity of a research study. Reflexivity pertains to researchers' self-awareness and the strategies they use to manage potentially biasing factors within the study (Jootun, McGhee, & Marland, 2009; Porter, 1993). Merriam (2009) shared that researchers need to explain their biases, dispositions, and assumptions in relation to their investigation. Merriam also suggested that this clarification of the researcher's position allows the reader to better understand how the researcher might have arrived at a particular interpretation of the data. In this study, I used the strategy of reflexivity where I reflected on any biases that I may have had about specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Lincoln and Guba (1985) noted that a reflexive journal helps to prevent biases as the researcher makes regular entries during the research process. In these entries, I recorded methodological decisions and the reasons for them, the logistics of the study, and reflected on what was happening in terms of my own values and interests.

#### **Ethical Procedures**

I completed the NIH Office of Extramural Research human research protections training before beginning data collection (see Appendix E). I also abided by all U.S. and Israel federal research regulations. I conducted the study in accordance with Walden University's IRB guidelines. Data collection began after IRB approval had been obtained. I obtained the private intelligence company's cooperation and data use agreement before

using the company's data in my study. I kept confidential all names associated with each suicide bombing attack case, such as the names of the attackers, victims, families, first responders, and law enforcement officials; therefore, no identifiable information were used in any of my study's reports. I only used data that specifically pertained to patterns within each of Freeman et al.'s (2010) nine preattack phases. I kept confidential all security measures and tools used to deter, detect, and mitigate suicide attacks.

All hard copy and electronic data will be kept secured in a locked file cabinet and password protected computer in my personal home office for at least 5 years per Walden University's IRB guidelines. Only my supervising committee and Walden University IRB had access to the data. After the study is completed and approved, a summary report of the research findings will be e-mailed to the private intelligence company board members. After 5 years, I will properly destroy the data using techniques such as shredding.

# **Summary**

In this multiple case study, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). Then using purposeful random sampling, I selected three successful and three failed suicide attack cases from

the cases that met the study's selection criteria. Data collection included a researcher-created terrorist activity data collection worksheet (see Appendix B), a researcher-created site data collection worksheet (see Appendix C), and a researcher-created questionnaire into suicide bombing events (see Appendix D). The information was transcribed and data were managed with NVivo. Data were analyzed using two stages of analysis in case study research: (a) within-case analysis or single-case analysis and (b) cross-case analysis. The study was conducted in accordance with the parameters established by Walden University's IRB. I will keep all data secured in a locked file cabinet and password protected computer.

In Chapter 3, I included the introduction, research design and rationale, role of the researcher, methodology, issues of trustworthiness, and a summary. In Chapter 4, I include the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and a summary. In Chapter 5, I include the interpretation of findings, limitations of the study, recommendations, implications, and a conclusion.

## Chapter 4: Results

The purpose of this multiple case study was to explore specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Three data sources were analyzed using within-case analysis or single-case analysis and cross-case analysis to determine the similarities and differences in the three successful and three unsuccessful attacks or bombing cases in Israel: (a) researcher-created terrorist activity data collection worksheet, (b) researcher-created site data collection worksheet, and (c) researcher-created questionnaire into suicide bombing events. The central research question explored the specific patterns within each of Freeman et al.'s nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. In Chapter 4, I include the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and a summary.

# Setting

I used a researcher-created terrorist activity data collection worksheet, which was based on Freeman et al.'s (2010) nine preattack phases, to collect archival data from a private intelligence company's database in Israel on the six cases (see Appendix B). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public data that was written or on the Internet about the six cases (see Appendix D). I used a researcher-created site data collection worksheet to collect

data at each site of the three successful and three failed suicide bombing attack locations (see Appendix C). Obtaining data from these three sources helped in triangulating or establishing converging lines of evidence, which made the findings robust (see Yin, 2012). There were no personal or organizational conditions that influenced data collection or interpretation of the study results.

# **Demographics**

This section contains case information about the six attacks analyzed using Freeman et al.'s (2010) nine preattack phases. I used three successful attacks and three unsuccessful attacks in this study. Tables 2 and 3 contains the information about the year of attack, attack outcome, city of attack, bomber casualty, civilian casualty, and target type. As shown in Tables 2 and 3, the successful attacks occurred in 2001 and 2002, whereas the unsuccessful attacks occurred in 2005 and 2006. The differences in years might be attributed to counterterrorist decision makers and operators having a better understanding of the nine preattack phases; thus, improving their counterterrorism strategies. In additions, the timeframe differences between the successful and unsuccessful attacks might also be attributed to environmental changes, such as suicide attacks originating from the Gaza Strip or other Palestinian territories, but a barrier or wall was built beginning in 2002 at the height of the second intifada, when major rioting and civil unrest took place from 2000 to 2006 (Butterworth et al., 2012; Zonszein, 2014). Zonszein (2014) reported that Prime Minister Ariel Sharon ordered it as a measure to protect Israelis from Palestinian suicide bombers.

Table 2

Breakdown of the Case Information of the Successful Attacks

Categories	Successful attack #1	Successful attack #2	Successful attack #3
Year of attack	March 2, 2002, at 7 p.m.	August 9, 2001, at 2 p.m.	March 9, 2002, at 10:30 p.m.
Attack outcome	Successful attack targeting civilian population in a Jewish Orthodox community approximately 1 kilometer (km) from center city Jerusalem	Successful attack targeting civilian population in a pizza restaurant, Sbarro, in center city Jerusalem	Successful attack targeting civilian population in a popular café and bar, called, Café Moment, in the city of Jerusalem, along the outskirts of the center part of the city
City of attack	Jerusalem	Jerusalem	Jerusalem
Bomber casualty	1 suicide bomber, age 19	1 male suicide bomber, age 22	1 male suicide bomber
Civilian causality	11 dead, 50 injured	15 dead, 130 injured	11 dead, 54 injured
Target type	Entrance to a Jewish religious place of study, Yeshiva, on a Saturday night, after the Sabbath	Entrance to a Jewish religious place of study, Yeshiva, on a Saturday night, after the Sabbath.	Café and bar frequented by local younger population of the city

Table 3

Breakdown of the Case Information of the Unsuccessful Attacks

Categories	Unsuccessful attack #1	Unsuccessful attack #2	Unsuccessful attack #3
Year of attack	July 23, 2005	July 17, 2006	March 21, 2006
Attack outcome	Failed	Failed	The attack was foiled by police after the would-be suicide bomber was arrested by police following a high-speed chase
City of attack	Jerusalem/Central Israel	Jerusalem/Central Israel	It is believed that the would-be suicide bomber planning an attack in Tel Aviv
Bomber casualty	0 dead or injured	0 dead or injured	0 dead, 0 injured
Civilian causality	0 dead or injured	0 dead or injured	0 dead, 0 injured
Target type	Suicide bombing somewhere in Central Israel	Suicide bombing somewhere on Yafo Street	While in police custody, the would-be suicide bomber revealed that he was planning on detonating an explosive device at a bus stop near the Haifa-area checkpoint junction

## **Data Collection**

I first used a researcher-created case study selection worksheet to select the successful and failed suicide attack cases that met the study's selection criteria from the 35 suicide bombing cases that took place from 2000 to 2010 (see Appendix A). From the cases that met the study's selection criteria, I used purposeful random sampling using a random number generator to select three successful and three failed suicide attack cases. After selecting the six cases, I used a researcher-created terrorist activity data collection worksheet to collect archival data from the private intelligence company's database in Israel on the six cases (see Appendix B). I visited the site of each of the six suicide bombing cases and I used a researcher-created site data collection worksheet to collect data at each site (see Appendix C). I used a researcher-created questionnaire into suicide bombing events to collect open source information or public data that was written or on the Internet about the six cases (see Appendix D). I transcribed all of the data.

# **Data Analysis**

I analyzed three data sources for this multiple case study research: (a) researcher-created terrorist activity data collection worksheet, (b) researcher-created site data collection worksheet, and (c) researcher-created questionnaire into suicide bombing events. Each data source was analyzed using a qualitative content analysis to search for the most frequent occurrences found in each of the data. Specifically, I conducted single-case analysis and cross-case analysis. Each data source file was also uploaded to NVivo, which allowed for a more systematic organization and tabulation of the discovered

themes from the analysis. I found no discrepant cases during data analysis. In the results section, themes with the most number of occurrences were identified as the major themes and the ones with fewer occurrences were the minor themes of the study.

### **Evidence of Trustworthiness**

In this multiple case study, I assessed trustworthiness through credibility, transferability, dependability, and confirmability. I established credibility using triangulation where multiple data sources were used, specifically, the researcher-created terrorist activity data collection worksheet, the researcher-created site data collection worksheet, and the researcher-created questionnaire into suicide bombing events. I ensured transferability by providing a rich description of the context of the study and used a combination or mixed purposeful sampling, which included maximum variation sampling and purposeful random sampling. I established dependability through the use of audit trails, thus, thoroughly collecting documentation about all aspects of the research. I established confirmability through the strategy of reflexivity where I reflected on any biases that I may have had about specific patterns within each of Freeman et al.'s nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. In these entries, I recorded methodological decisions and the reasons for them, the logistics of the study, and reflected on what was happening in terms of my own values and interests.

#### Results

I organize this section based on one central research question: What are the

specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel? Based on the central research question analyzed data, 13 major themes and 21 minor themes emerged for the successful attacks, whereas seven major themes and 20 minor themes emerged for the unsuccessful attacks. This section is organized in three sections: successful attacks, unsuccessful attacks, and crosscase analysis. I organized the successful attacks and unsuccessful attacks subsection by the three data collection sources: (a) terrorist activity data collection worksheet, (b) site data collection worksheet, and (c) questionnaire into suicide bombing events. Major themes and minor themes are discussed and include descriptive narrative data related to the themes in block quotation format or in quotation marks. In presenting the results, verbatim information from the data collection sources were used, thus, the use of quotations. Under each data collection source, I used quotation marks when the information being quoted was less than 40 words; thus, the information was incorporated into the text and enclosed with double quotation marks. I used the block quotation format when the quotation consisted of 40 or more words; thus, displaying it in a freestanding block of text without the quotation marks. Citing these sources was not necessary as the quotations were presented under the corresponding data collection source.

### **Successful Attacks**

**Terrorist activity data collection worksheet.** The first data source was the terrorist activity data collection worksheet, which was used to collect archival data from a

private intelligence company's database in Israel on the cases. From the content analysis, all nine framework categories were present in the successful attacks. The categories with the most number of occurrences were general planning, financing, and operational preparation of the attack. There were nine major themes and nine minor themes. Table 4 contains the breakdown of the themes and number of occurrences for each framework category.

Table 4

Results Breakdown from the Terrorist Activity Data Collection Worksheet of the Successful Attacks

Successful Attacks		
Framework categories	Themes	No. of occurrences
1. Networking and indoctrination	Hamas group or organization **Izz ad-Din-al-Qassam Brigade affiliated with the Hamas organization	2
	al-Aqsa Martyrs Brigade, affiliated with the Fatah	1
2. Terrorist training	organization  No special training conducted for the attack	2
	Very well trained and prepared for the attack	1
3. General planning	Complete coordination, followed as planned (time of attack, disguise, transportation, etc.)	3
4. Recruitment	Coming from a refugee camp	1
	Volunteered for the suicide bombing	1
	Coming from one neighborhood; easier recruitment	1
5. Financing	Funded by large organizations	3
6. Operational Planning	Scouting of attack site	2
	Targeting a large number of people for high casualty rate at a specific time and location	1
	Suspects disguised themselves	1
7. Weapons procurement	Using of explosive devices with other sharp metal objects to impose the most damage	2
	Created by the group's chief bombmaker	2
	Using an improvised explosive device	1
8. Logistical preparation	Using a disguise, appropriate to the target demographics and location	2
	Forming a cell within the local target area	1
9. Operational preparation	Thorough research and planning of target site, led by the handlers	3

**Networking and indoctrination.** The first category was the networking and indoctrination of the three successful attacks. The category had one major theme where two attacks were carried out by the Hamas group or organization and one minor theme, where one attack was carried out by the al-Aqsa Martyrs Brigade, affiliated with the Fatah organization.

Major Theme 1: Hamas group or organization. The first major theme was the finding that two of the successful attacks were by the Hamas group or organization, one of which was by the Izz ad-Din-al-Qassam Brigade, also affiliated with the Hamas organization. Suicide attack 2 (SA2) was performed by the Hamas group. The suicide bombers acted as the handlers of one another, where each had their respective professions as well at the time of the attack.

The bomber, who was 22 at the time of the attack, was from the West Bank town of Aqabah. He was the son of a successful restaurant owner and from a landowning family. His Hamas hander led him to the site the day of the bombing. The bomber volunteered for the suicide bombing and was paired up with another person who acted as his handler, a Palestinian woman from the West Bank town of Nabi Salih. At the time of the attack, she was a 20-year-old part-time student at Birzeit University and a part time journalist.

Suicide attack 3 (SA3) was arranged by the Izz ad-Din-al-Qassam Brigade, an arm of the Hamas group. The group targeted a popular café and planned the attack at a time when the most crowd was present.

On March 9, 2002, a suicide bomber detonated an explosive device in the Café Moment, a popular café and bar, killing 11 people and wounding 54. The attack was planned and carried out by the Silwan cell, a branch of Izz ad-Din-al-Qassam Brigade, the militant arm of Hamas. On the night of the attack, two Silwan cell members, picked up the bomber and drove him to the café at 10 p.m. They arrived at 10:29 p.m. The bomber then walked into the café through the garden.

Normally, he would have had to talk to a bouncer to get in, but the bouncer was in the bathroom. The bouncer then came out of the bathroom and approached him.

Upon confrontation by the security guard, bomber then detonated the bomb at 10:30 p.m.

Minor Theme 1: al-Aqsa Martyrs Brigade, affiliated with the Fatah organization. A minor theme with only one occurrence was the successful attack claimed by the al-Aqsa Martyrs Brigade, affiliated with the Fatah organization. Suicide attack 1 (SA1) was by the al-Aqsa Martyrs Brigade, which is the military wing of the Fatah organization. The attack was in response to the previous security operations in their refugee camp. "The network utilized for the attack was affiliated with the al-Aqsa Martyrs Brigade, which is considered the military wing of the Fatah organization of the West Bank. The network was based in the Deheisheh refugee camp of Bethlehem."

*Terrorist training.* The second category was the terrorist training of the attackers. From the content analysis of the worksheet, one major theme emerged, that no special

training was conducted for the attack, and one minor theme emerged, which was very well trained and prepared for the attack.

Major Theme 2: No special training conducted for the attack. The second major theme was that two of the three attacks had no special training conducted. SA2 and SA3 had no special training performed or identified. However, it was reported that both the handler and bomber met with each other a day before the attack. "No special training was used in this attack; however, the handler and bomber met the day prior to the attack in the neighboring city of Ramallah, and the handler took the bomber to the scene."

Minor Theme 2: Very well trained and prepared for the attack. The one minor theme was the successful attack's excellent training and preparation. SA1 was very well planned by the al-Aqsa Martyrs Brigade. It was described that the suspects carefully strategized the attack to the point of disguising as one of the local religious Jews in order to move and operate more swiftly.

The training was done in the refugee camps next to Jerusalem, which enables ease of access to the targeted city at the time of the execution of the attack. Suicide bomber had been prepared to the extent of dressing like a religious Jew and thereby was able to operate easier in this environment.

General Planning. The third category was the general planning of the attackers.

Based on the content analysis, findings indicated that the successful attacks had complete coordination and the plans were followed as intended, such as the time of attack, disguise, and transportation; thus, one major theme emerged in this phase.

Major Theme 3: Complete coordination, followed as planned (time of attack, disguise, transportation, etc.). The third major theme of the study was the full coordination of the attack groups in fully executing their plans. All three attacks embodied the said characteristic. SA1 was well planned and well-coordinated. The attack was successful because it was executed according to the planned time, location, and crowd number. In addition, the bomber even prepared a disguise to avoid from being suspected among the crowd members.

Well planned target based on time of attack, location of the attack, with a choreographed attack to coincide with the ending of religious classes at the end of the Jewish Sabbath. Time of the attack was well planned as well as disguise the bomber wore to include a Jewish skullcap.

SA2 was also well executed; the plan was completed with an efficient escape vehicle. Another factor for success was the fact that the handler personally went to the site to count the number of people at the planned time of attack. By doing so, both the handler and bomber were prepared for the actual attack.

Planning included a taxi driver most likely chosen for ease to escape as well as a vehicle often used in center city due to traffic congestion. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked.

Lastly, SA3 was implemented as planned. The members of the cell were permanent residents of Israel which allowed them to freely access and travel the targeted area in Jerusalem. As residents, they were skilled and had enough knowledge on how to move around the target area.

The attack was carried out by the Silwan cell. Silwan is an Arab neighborhood located in East Jerusalem on the outskirts of the old city. The members of the cell had permanent resident status in Israel, which allowed them to travel in Israel without suspicion. The Silwan cell received orders from Hamas in Ramallah to locate and suicide bomb a target in crowded area in Jerusalem.

**Recruitment.** The fourth category was the recruitment process of the attack groups. From the content analysis, there were three minor themes that emerged, each having one occurrence: (a) coming from a refugee camp, (b) volunteered for the suicide bombing, and (c) coming from one neighborhood; easier recruitment.

Minor Theme 3: Coming from a refugee camp. The first minor theme of the category was the attackers coming from a refugee camp. SA1 was a response to the security attacks and operations conducted near Bethlehem. The al-Aqsa Martyrs highlighted that the bomber was directly from the refugee camp and committed the act to condemn the treatments received at the refugee camp. "The bomber was from a refugee camp near Bethlehem. According to the al-Aqsa Martyrs Brigade spokesman. This operation is a response to the Israeli crimes committed in our heroic refugee camps. We selected a refugee to launch this response."

Minor Theme 4: Volunteered for the suicide bombing. The second minor theme in this category was the attackers volunteered for the suicide bombing. SA2 had a volunteer bomber paired with a handler to execute the attack. In addition, the volunteer bomber was also a part-time student and a part-time journalist,

Bomber volunteered for the suicide bombing and was paired up with handler to act as his handler, a Palestinian woman from the West Bank town of Nabi Salih. At the time of the attack, she was a 20-year-old part time student at Birzeit University and a part time journalist.

Minor Theme 5: Coming from one neighborhood; easier recruitment. The third minor theme in this category was that the attackers came from one neighborhood implying an easier recruitment. SA3 had cell members coming from the same residential area or neighborhood. This became an advantage to the success of the attack as the eight members of the cell were able to plan and recruit accordingly to prepare for the possible security barriers on the day and time of the attack.

The attack was carried out by the Izz ad-Din-al-Qassam Brigade, the militant arm of Hamas. The Silwan cell was directly responsible for the attack. Total members of the cell were eight. All cell members were residents of the same neighborhood, thereby making recruitment locally and enabling a safe means for indoctrination in mitigating security forces interdiction.

*Financing.* The fifth category was the financing of the attackers. All three attacks were reported to be funded by large organizations, which was the fourth major theme of

the study. SA1 was funded by the Fatah organization, with a reported budget of \$50,000 per month. "The entire operation was financed under a fund of \$50,000 per month to conduct such attacks by the Fatah organization." On the other hand, SA2 was funded by the Hamas group. The reported amounts were \$500 and \$117,000, respectively. It was shared that "Hamas paid \$500 for the bomb itself and \$117,000 for the operation by the bomber." SA3 was reportedly funded by the Arab Bank in cooperation with the Hamas group. It was also indicated that the entire operation was under the support and direction of Hamas Ramallah.

The Arab Bank was later sued for allegations of working with Hamas in financing the attack. The Silwan cell received orders from Hamas in Ramallah to locate and suicide bomb a target in crowded area in Jerusalem. The entire operation was under the command and direction of Hamas Ramallah.

Operational Planning. The sixth category was the operational planning of the attacks. In two of the three attacks, the suicide bombers scouted the attack site prior to the actual implementation. From the content analysis, there was one major theme, scouting of attack site, and two minor themes, targeting a large number of people to obtain a high number of casualties at a specific time and location, and suspects disguised themselves.

Major Theme 5: Scouting of attack site. The fifth major theme of the study was the scouting of the attack site by the attackers prior to the execution of their plans, which was performed in two of the three successful attacks. SA2 was executed as planned, having the handler scout the target area by counting the number people within the vicinity

of the restaurant at the time of their attack. The scouting of the handler allowed for them to strategically plan for the attack on the following day.

Hamas paid the bombmaker \$500 for an explosive device hidden in a guitar case. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked. On the day of the attack, she met the bomber for the first time in Ramallah, where they disguised themselves as tourists before traveling to Jerusalem by taxi. Once in Jerusalem, she led the bomber to the target location.

On the day of the attack, both took a taxi from the West Bank city of Ramallah to Jerusalem. Prior to leaving the West Bank, the two had disguised themselves as tourists to blend in once they got to Jerusalem. Handler left the site to go back to Ramallah through the Damascus gate of the Old City, and at 2 p.m., the bomber detonated the device.

SA3 was performed with the instructions of Hamas to search for a specific attack site that would give them an ease of access without encountering any security hindrances or barriers that would not go along with their plans. The bomber was able to get inside the target site without being seen by the bouncer and by the time the bouncer noticed the suspicious act of the bomber, the explosive was detonated.

Weeks before the bombing, cell leadership were given instructions from Hamas to scout for an attack site. The eight-member cell was in place inside Jerusalem as

the neighborhood they lived in was a part of the city, thereby easing targeting and reconnaissance operations. On the night of the attack, the Silwan cell members assigned to act as handlers for the bomber, picked up and drove the bomber to the café at 10 p.m. They arrived at 10:29 p.m. Bomber then walked into the café through the garden. Normally, he would have had to talk to a bouncer to get in, but he was in the bathroom. The bouncer then came out of the bathroom and approached him due to his suspicious behavior and upon confrontation, the bomber detonated the bomb at 10:30 p.m.

Minor Theme 6: Targeting a large number of casualties at a specific time and location. The first minor theme of this phase was the plan of targeting a large number of casualties at a specific time and location. Only one successful attack practiced this theme. SA1 was planned by targeting a large number of casualties gathered outside of an institution following a celebration. It was reported that the attack was very precise, detonating the bomb at the exact time after the classes have ended and individuals were starting to gather for their free time. The attack later struck the students coming from the Yeshiva.

On March 2, 2002, a large group of Haredi Orthodox Jews had gathered outside of a Yeshiva in the Beit Yisrael neighborhood following a bar mitzvah celebration. At approximately 7 p.m., the suicide bomber detonated a bomb in a car outside of the Yeshiva killing 11 and wounding more than 50 people. The bomber had been recruited by the al-Aqsa Martyrs Brigade to carry out this

attack. This attack would later be known as the Beit Yisrael Massacre. The bomber struck at the precise moment to exact a large number of casualties, just as classes on religious thought at the religious school had ended and students and others filled the small neighborhood streets to enjoy a few hours of free time.

Minor Theme 7: Suspects disguised themselves. The second minor theme of this phase was the plan of disguising the suspects. There was only one successful attack related to this theme. For the SA2, the scouting of the handler became useful as their group was able to prepare a disguise to act swiftly on the day of the attack. The handler and the bomber disguised themselves as tourists to stay unnoticed and be credulous as they executed their plan.

Hamas paid bombmaker \$500 for an explosive device hidden in a guitar case. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked. On the day of the attack, she met the bomber for the first time in Ramallah, where they disguised themselves as tourists before traveling to Jerusalem by taxi. Once in Jerusalem, she led bomber to the target location.

On the day of the attack, both took a taxi from the West Bank city of Ramallah to Jerusalem. Prior to leaving the West Bank, the two had disguised themselves as tourists to blend in once they got to Jerusalem. The handler left the site to go back to Ramallah through the Damascus gate of the Old City and at 2 p.m. the bomber detonated the device.

Weapons procurement. The seventh category of the framework was the weapons procurement which had two major themes and one minor theme. Two of the three attacks used explosives devices with other sharp metal objects and employed their groups' chief bombmaker. In one attack, the attacker used an improvised explosive device.

Major Theme 6: Using of explosive devices with other sharp metal objects to impose the most damage. SA2 and SA3 employed explosives hidden by the attackers or bombers, where the explosives were mixed with metal objects to perpetrate the most damage and destruction to their attack sites. "The device in this attack was explosives hidden in a guitar case containing nails, nuts, and bolts to inflict the most damage. It was constructed by Hamas's chief bombmaker at the time."

Major Theme 7: Created by the group's chief bombmaker. SA2 and SA3 also utilized weapons or explosives that were assembled by Hamas's primary bombmakers during the time of the attacks. "The device in this attack was explosives hidden in a guitar case containing nails, nuts, and bolts to inflict the most damage. It was constructed by Hamas's chief bombmaker at the time."

Minor Theme 8: Using an improvised explosive device. SA1 involved an improvised explosive device strapped to the chest of the bomber at the time of the attack. The improvised explosive device was detonated as the attacker stayed beside a group of mothers with babies at the school institution's entrance.

Weapon was an improved explosive device with the bomber being the delivery mechanism of the explosive device. Law enforcement shared that the large device

was strapped to the chest of the bomber who detonated himself as he stood next to a group of mothers with baby strollers near the school's guesthouse entrance.

Logistical preparation. The eighth category of Freeman et al.'s (2010) framework was the logistical preparation. From the analysis, one major theme and one minor theme were obtained. In two of the three attacks, the attackers reportedly used disguises that were appropriate to their target demographics and location. In another attack, attackers formed a cell within their local target area for easier mobility.

Major Theme 8: Using a disguise, appropriate to the target demographics and location. In SA1, the bomber used a realistic disguise to perform the plans strategically without being suspected by the authorities. Furthermore, the bomber wore the explosive device to cover the large volumes of explosives to be used for the attack.

Logistics included a disguise of the bomber as well as the age of the bomber was indicative of a teen taking part in the religious classes after the Sabbath or as one of the party goers to the bar mitzva taking place at the same time. A hostel is also at the same location which tends to host guests of a teenager age bracket. The explosive device was worn on the bomber in an effort to hide and conceal the large amounts of explosives until detonation.

In SA2, the attacker had a guitar case containing the explosives as well as the metal objects used to ensure that the destruction and result would be in the group's favor.

Bombmaker was paid \$500 for the bomb itself and \$117,000 for his troubles. The device he built was 5 to 10 kilograms (kg) of explosives hidden inside a guitar

case filled with nails, bolts, and nuts. In addition, the handler and bomber dressed as tourists with a guitar case to disguise the explosive device.

Minor theme 9: Forming a cell within the local target area. To ease the logistical operations, SA3 employed a local cell which allowed them to freely move around the city in planning and executing their attack.

Ease to conduct logistics was because of the cell being locally based and having received orders from outside of Israel, in Ramallah. This enabled logistics to be conducted within Jerusalem, utilizing Israeli licensed vehicles, Israeli citizens, and free movement to all parts of the city.

Operational preparation. The final and ninth category of the framework was operational preparation which included all three successful attacks' thorough research and planning of target sites, led by the handlers. SA1 had a handler who led and guided the bomber to the target site during the attack. The handler assisted in evading security from the refugee camp to the target site, and the knowledge of the handler paved the way to target a location that was congested at a certain time, perfect for their aim and purpose.

Thorough understanding by the adversary cell included the ability to bypass security leaving the refugee camp and entering Israel to arrive at the target site in Jerusalem. This required a handler that took the bomber from the refugee camp to the target site prior to the attack hour. In addition, taking into account that the attack was planned at this particular time and the exact location required operational planning that included identifying the events taking place in such a

congested target site and understanding the population of which the bomber must operate.

SA2 was also effective because of the handler's scouting of the target site prior to the actual day of attack. The handler personally visited the site, and observed and counted the number of individuals to obtain a visual of the site.

His Hamas hander led him to the site the day of the bombing. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked.

Finally, SA3 also had handlers or leaders who guided the bombers in moving around the city. It was reported that the handlers led the bombers to the target site at a precise time or when the café was busy and crowded.

Members of the Silwan cell held residency in Israel allowing them to move about freely. On the night of the attack, the cell handlers picked up and drove the bomber to the café at 10 p.m. They arrived at 10:30 p.m. The drive time to the location was timed for an attack when the café was at full capacity.

**Site data collection worksheet.** The second data source was the site data collection worksheet. The site data collection worksheet differs from the terrorist activity data collection worksheet and questionnaire into suicide bombing events as I visited the site of each of the suicide bombing cases and I used the worksheet to collect data at each site. From the analysis of the second data source, only the categories of networking and

indoctrination; and general planning emerged. There were one major theme and one minor theme. Table 5 contains the breakdown of the results from the content analysis of the site data collection worksheet of the successful attacks.

Table 5

Results Breakdown from the Site Data Collection Worksheet of the Successful Attacks

Framework categories	Themes	No. of occurrences
1. Networking and	al-Aqsa Martyrs Brigade,	1
indoctrination	affiliated with the Fatah	
	organization, to condemn	
	the treatment in refugee	
	camps	
3. General planning	Targeting a site with a	3
	probability of a high	
	number of casualties at a	
	certain time	

Networking and indoctrination. The first category was the networking and indoctrination of the attacks. From the analysis, the data only indicated one attack networking plan. It was found that one successful attack was by the al-Aqsa Martyrs Brigade, affiliated with the Fatah organization, to condemn the treatment in refugee camps, which was the only minor theme for successful attacks using the site data collection worksheet. The responsibility for SA1 was claimed by the al-Aqsa Martyrs Brigade. The main motive of the group was to condemn the treatment in the refugee camps, in addition, another goal was to target the Israeli Jews and ultra-Orthodox. "The al-Aqsa Martyrs Brigade claimed responsibility and claimed their motive was because of treatment in the refugee camps. Furthermore, their goal was to kill Israeli Jews and the

ultra-Orthodox were chosen because they are exempt from military service."

General planning. The third category was the general planning of the three successful attacks. All three attacks reported to target a site with a probability of a high number of causalities, at a certain time, which was the main theme for successful attacks using the site data collection worksheet. SA1 was generally planned to target the Israeli Jews. In particular, the attackers wanted to cause distress to the Israeli Jews by timing the attack after a bar mitzvah celebration. The attackers aimed to cause suffering to the large groups of families in the neighborhood.

The site was a synagogue located in an ultra-Orthodox neighborhood. The site was chosen to specifically attack Israeli Jews at a time when the high concentration of religious Jews was guaranteed as a target based on events taking place, ease of access, disguise capabilities, and lack of security.

The attack occurred during a bar mitzvah celebration and at the end of the Sabbath, which results in large amounts of younger targets for the attack.

This is a religious neighborhood and Saturday evening does not have any shopping districts open, but rather large groups of teens who are congregating with their peers after spending most of the day in prayer and with family.

SA2 also related to access to the location and the large number of people as it was a tourist spot. It was reported that selecting commercial area decreased the chance of suspecting an attack, thus, making the attackers more confident about the success of their plan.

The site was chosen because it was easily accessible, the location would be crowded, the site was located in a commercial district, and no one would really expect or see the attack coming, thus increasing the likelihood of success.

The bomber and his handler took a cab from Ramallah directly to

Jerusalem. At the time, this would have been a very direct and quick route to take
to the site.

The site was located in the Downtown Triangle district in Jerusalem. The district is heavily visited by both locals and tourists. There are many small shops located within the vicinity of the site. Located 20 meters (m) Northeast from the Ha-Pa'amon mall. There is a hospital located approximately 110 m Northeast of the site. The closest religious site is the Tiferet Yisrael Synagogue, located approximately 250 m Northwest of the location.

Finally, SA3 was also planned with the target being the destruction of a popular and crowded location. With the high probability of affecting a large number of people as well as an effect to the government, the attack was planned and executed accordingly.

The site was a popular location, which increased the chances of casualties. In addition, it was located within 100 m of Prime Minister, Ariel Sharon, residence.

It was located on Azza Street, the major thoroughfare for the Rehavia neighborhood. The street had other cafés and shops near the site.

Unlike most places, the café was open late Friday night into the early morning of Saturday, which made it a popular location.

Questionnaire into suicide bombing events. The third data source was the questionnaire into suicide bombing events, which was used to collect open source information or public data that was written or on the Internet about the six cases. In this data source, I found themes for eight of the nine categories, but data was lacking on the second category, terrorist training. There were four major themes and 11 minor themes. Table 6 contains the breakdown of the results from the questionnaire of the successful attacks.

Table 6

Results Breakdown from the Questionnaire of the Successful Attack

Framework categories	Themes	No. of occurrences
1. Networking and	Military wing of the Fatah	1
indoctrination	organization	
	Hamas organization is	1
	response to the assassinations	
	of their two leaders	
3. General planning	Targeting a site with the	3
	probability of a high number	
	of casualties at a certain time	
	(number of causalities,	
	accessibility, time)	
4. Recruitment	Knowledge in entering or	2
	accessing the country of target	
	Bomber was recruited by the	2
	Hamas organization	
	al-Aqsa Martyrs Brigade,	1
	affiliated with the Fatah	
	organization in retaliation of	
	the operations in the refugee	
	camp	
	Volunteered for the attack	1
5. Financing	Funded by large organizations	2
6. Operational planning	Using a car to the attack site;	1
	with the assistance of a	
	handler	
7. Weapons procurement	Assembled from camp and	1
	transported to target site	
	Using of explosive devices	1
	with other sharp metal objects	
	to impose the most damage	
	Created by a group's chief	1
	bombmaker	
8. Logistical preparation	Bomb was hidden in a guitar	1
	case; Using a disguise	
9. Operational preparation	Finding a location with	1
	minimal security and barriers	
	Finding a crowded location	1

Networking and indoctrination. Under the first category, two minor themes emerged, each receiving just one occurrence respectively. From the questionnaire, it was discovered that the two groups involved were the military wing of the Fatah organization (Minor Theme 1) and the Hamas organization is response to the assassinations of their two leaders (Minor Theme 2). SA1 was an attack systematically organized and subsidized by the military section of the Fatah organization from the Bethlehem region. "This attack was organized and funded by the military wing of the Fatah organization who is well structured and funded in the Bethlehem region." SA2 was a response by the Hamas organization to the slayings of their two leaders, which occurred 10 days before the bombing. "Hamas, who carried out the attack, stated that the bombing was a response to the assassinations of two Hamas leaders that occurred 10 days prior to the bombing.

General planning. The third category was the general planning of the three successful attacks, where all three attacks targeted sites with the probability of a high number of casualties at a certain time (number of causalities, accessibility, and time). This is the first major theme in the questionnaire into suicide bombing events of the successful attacks. SA1 was planned with the target of disturbing the ultra-Orthodox neighborhood, which was known to be jammed and unsecured; which was a perfect location for the attack. Furthermore, the target site is popular for tourists and religious families with minimal causalities from the Muslim community.

The site was picked because it was located in an ultra-Orthodox neighborhood.

The attack resulted in a large amount of casualties in that it is congested, lacked

security, and was located along the corridor that leads to the Palestinian territories.

Site is known for tourists as well as local religious civilians for a place to view ultra-Orthodox living in Jerusalem as well as for religious families who travel to the neighborhood for shopping and studying.

The site was picked to specifically target Israeli Orthodox Jews with minimal casualties to the Muslim community in the city.

It was just after 7 p.m. at the end of Shabbat, people would be congregating for a bar mitzvah in the target location. The end of the Sabbath was at the time of the attack and this led to an increase in civilians outside.

Similarly, SA2 was another target site that was chosen because of its accessibility and the number of probable causalities resulting from the attack. The target site was based on the careful scouting of the handler; thus, choosing a site with a large number of tourists allowed them to work and move without being suspected with acting suspiciously.

The target site was selected because it was easily accessible, it was located in a commercial district, meaning there would be people at the location, and it would be unsuspected and catch people off guard, increasing the chances of success.

This site was located at the corner of Jaffa Road and King George Street in the Downtown Triangle district. This location guarantees there would be lots of people in the restaurant or its vicinity. Also, the site is very accessible on foot, by bus, and by car, both taxis and private vehicles. The Downtown district receives lots of tourists, which made it easier for the bomber and his handler to approach the site without appearing suspicious. The decision to bomb this particular site was based on scouting done by the handler prior to the attack. The location was chosen because it would be crowded when they attacked.

The time of the attack was based on when they believed the restaurant would be crowded.

Finally, SA3 was another terror aggression planned with the aim of affecting the government and destroying several commercial establishments. In addition, the group has always had the aim of negatively affecting and bombing the most crowded areas in Jerusalem.

It was a popular area for recreation and located 100 m from Prime Minister Ariel Sharon's residence. The site was a very popular café that would turn into a bar at night. It was also open late even on the Sabbath.

The attack was carried out by the Silwan cell. Silwan is a Palestinian neighborhood located in East Jerusalem on the outskirts of the old city. The members of the cell had permanent resident status in Israel, which allowed them to travel in Israel without suspicion. The Silwan cell received orders from Hamas in Ramallah to locate and suicide bomb a crowded area in Jerusalem.

A popular late-night hangout for younger people. It is suspected that the location was chosen because of its proximity to the then Prime Minister's Residence and because it was a popular location.

**Recruitment.** The fourth category was the recruitment made by the three successful attacks. From the content analysis, two major themes and two minor themes emerged. It was then discovered that the recruitments centered on the knowledge in entering or accessing the country of target and mainly by the Hamas organization.

Major Theme 2: Knowledge in entering or accessing the country of target. SA1 had a bomber who was recruited from the al-Aqsa Martyrs Brigade. The bomber had a direct and easy access entering Israel. "Bomber was recruited from within the al-Aqsa Martyrs Brigade as he was known and active against security forces and was chosen because he had access to entering into Israel." SA3 was similar to SA1 where the bombers had easy access to travel to and from Israel. Having Israeli cards allowed the attackers to travel and search for the most ideal location for their target.

Hamas instructed the bombers to find a crowded location to bomb. The bombers were residents of East Jerusalem and had Israeli ID cards, allowing them to travel in and out of Israel. The attack was organized by the Silwan cell who were taking instructions from Hamas.

Major Theme 3: Bomber was recruited by the Hamas organization. SA2 was a terror aggression claimed by the Hamas organization in response to the killings of their

two leaders. It was reported that Hamas has been responsible for many bombings and attacks before the August 9, 2001 attack.

Hamas claimed the bombing was a response to the assassination of two Hamas leaders. The bombing happened during the Second Intifada, September 28, 2000 through February 8, 2005. Hamas, who carried out this attack, was responsible for many bombing prior to and after this attack.

SA3 again was instructed and funded by the Hamas organization, with recruits who had direct access to and from Israel.

Hamas instructed attackers to find a crowded location to bomb. The bomber was a resident of East Jerusalem and had Israeli ID cards, which allowed them to travel in and out of Israel. The attack was organized by the Silwan cell who took instructions from Hamas.

Minor Theme 3: al-Aqsa Martyrs Brigade, affiliated with the Fatah organization in retaliation of the operations in the refugee camp. SA1 was performed by the al-Aqsa Martyrs Brigade, associated with the Fatah organization to address the Israeli security acts in the refugee camp.

The claim by the Fatah organization spokesman was that the attack was in retaliation for the recent Israeli security operations in the refugee camp.

The bomber came from the refugee camp, Daheisha, right outside the Palestinian city of Bethlehem. This is a violent refugee camp, known for many attacks in Israel and within the refugee camp against security forces.

Minor Theme 4: Volunteered for the attack. SA2 had bomber who volunteered for the attack; and both bomber and handler was matched only on the day of the attack. "Bomber volunteered for the attack and was paired up with his handler on the day of the attack."

*Financing.* The fifth category was the financing of the successful attacks. From the content analysis, the fourth major theme was discovered, which was that the attacks were funded by large organizations. SA1 was funded by the military wing of the Fatah organization called as the al-Aqsa Martyrs Brigade. More specifically, it was reported that Yasser Arafat was the major financier of the group.

This attack was organized and funded by the military wing of the Fatah organization who is well structured and funded in the Bethlehem region.

The al-Aqsa Martyrs brigade is the militant arm of the Palestinian

Authority. It was discovered after the attack that they had been receiving funding directly from Yasser Arafat.

SA2 was funded by the Hamas organization. The bomber was paid \$500 and Hamas also provided other materials, resources, and transportation for the attack.

Hamas paid bombmaker \$500 for an explosive device hidden in a guitar case. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked. On the day of the attack, she met the bomber for the first

time in Ramallah, where they disguised themselves as tourists before traveling to Jerusalem by taxi. Once in Jerusalem, she led the bomber to the target location.

Operational planning. The sixth category was the operational planning, which had one minor theme, which was using a car that was going to the attack site, with the assistance of a handler. Thus, with SA1, the attacker used a car that was going to the target location, with the presence of a handler, and security disruptions were also mitigated. The operational planning was effective, having the bomber arrive using a car and at the same time, ensuring that the bomb was detonated at the right time.

Bomber took a car to the site with the assistance of a handler who guided the bomber into the target location and assisted in exploiting the security checkpoints leaving Bethlehem region.

The neighborhood had been attacked 3 times before. In this case, the bomber arrived in a car and detonated the bomb when approaching the crowded target.

Weapons procurement. The seventh category was the process of weapon procurement of the successful attacks. These three different attacks also had three different methods of weapons procurements. The three minor themes were assembled from camp and transported to target site, using of explosive devices with other sharp metal objects to impose the most damage, and created by a group's chief bombmaker.

Minor Theme 6: Assembled from camp and transported to target site. SA1 members came from a refugee camp and the devices were collected, formed, and brought

to the target site. "The devices were assembled and transported from the refugee camp to Jerusalem, Israel."

Minor Theme 7: Using of explosive devices with other sharp metal objects to impose the most damage. SA2 was executed using various explosive devices with sharp metal objects aimed to enforce greater damages and fatalities. It was reported that the use of explosives with sharp objects is a signature act by the Hamas group.

The bomb used in this attack used nuts, bolts, and nails to create a shrapnel effect to inflict more damage and create more casualties. The use of sharp objects in addition to explosives is used in many explosive devices used by Hamas.

Minor Theme 8: Created by a group's chief bombmaker. SA3 was also accomplished with the help of Hamas's chief bombmaker. "The bomb was built by Abdullah Ghaleb Barghouti, who was Hamas's chief bombmaker at the time. He had built other bombs used in attacks during the Second Intifada for Hamas."

Logistical preparation. The eighth category had one minor theme (this was Minor Theme 9 in the questionnaire into suicide bombing events of the successful attacks), which was the finding that the bomb was hidden in a guitar case and using a disguise. SA2 had a bomb that was hidden by the bombmaker inside a guitar case as a disguise and to conceal the explosives. "The bomb was made in the West Bank village of Burqa by the bombmaker and hidden in a guitar case."

*Operational preparation.* The final category was operational preparation. From the content analysis of the questionnaire, two minor themes were established, each receiving one occurrence respectively.

Minor Theme 10: Finding a location with minimal security and barriers. SA1 was executed given that the handler and bomber moved swiftly from one territory to another because of minimal security barriers while traveling to the target location. "The movement from the Palestinian territories to the target site was fairly exploitable in that minimal checkpoints could be bypassed and there was no need to enter the more secure center city district."

Minor Theme 11: Finding a crowded location. For SA2, emphasis was placed on the importance for the terror groups in finding a crowded and packed target location. In the attack on August 9, 2001, the handler stated that he previously inspected and observed the location to strategize and plan more effectively.

The site was chosen because it was a crowded location with easy access. The handler shared that prior to the attack she went to the site and counted how many people went in and out of the restaurant to determine how crowded the restaurant would be when attacked.

#### **Unsuccessful Attacks**

**Terrorist activity data collection worksheet.** Under the unsuccessful attacks, the first data source analyzed was the terrorist activity data collection worksheet. From the content analysis of the terrorist activity data collection worksheet, no information was

found about the logistical preparations of the unsuccessful attacks (Phase 8). In addition, findings indicated that the attackers had very little information about their planning and attack strategies. There were three major themes and 12 minor themes. Table 7 contains the breakdown of the findings from the terrorist activity data collection worksheet of the unsuccessful attacks.

Table 7

Result Breakdown from the Terrorist Activity Data Collection Worksheet of the Unsuccessful Attacks

Unsuccessful Attacks		
Framework categories	Themes	No. of occurrences
1. Networking and	Fatah organization	1
indoctrination		
	Unemployed suspect	1
	Islamic Jihad network	1
2. Terrorist training	Trained by the Fatah	1
_	organization	
	No relevant training known	1
3. General planning	Travel to the target site to	3
1 0	detonate themselves and the	
	locals	
4. Recruitment	Fatah organization	1
	Unemployed suspect	1
	Islamic Jihad network	1
5. Financing	Funded by the Government	1
C	of Iran through the Islamic	
	Jihad network	
6. Operational planning	Tamper security and attack	1
1 1	a populated site	
	Paying a driver to smuggle	1
	the suspect to Israel and	
	help with the attack	
7. Weapons procurement	5 kg explosive	2
• •		
9. Operational preparation	Detonating at a populated	2
	site	
	Paying a driver to smuggle	1
	the suspect to Israel and	
	help with the attack	
	*	

Networking and indoctrination. The first category under the unsuccessful attacks had three minor themes: (a) Fatah organization, (b) unemployed suspect, and (c) Islamic Jihad network. The unsuccessful attacks were organized by diverse groups. One suspect was identified as an unemployed attacker. Unsuccessful suicide attack 1 (USA1) was connected to the Fatah organization. In regard to unsuccessful suicide attack 2 (USA2), there were no other details about the network connected to the terrorist activity, but the suspect was unemployed. Unsuccessful suicide attack 3 (USA3) had a suicide bomber with ties to the Islamic Jihad network and other terror groups outside of Israel. "The would-be suicide bomber was connected to the Islamic Jihad network, which is connected to other terrorist organizations outside of Israel as well as being connected to governments that sponsor Islamic terrorism."

Terrorist training. The second category was the training of the attackers. From the content analysis of the terrorist activity data collection worksheet, the unsuccessful attacks had limited details about the training. Two underlying minor themes emerged: (a) trained by the Fatah organization, where USA1 was reportedly handled, supported, and trained provided by the same group, which was the Fatah organization; and (b) no relevant training known, where with USA3, the bomber had no relevant training.

General planning. The third category was the general planning conducted by the attackers. The terrorist activity data collection worksheet was analyzed and one major theme was formed, where all three unsuccessful attackers attempted to travel to the target site to detonate themselves and the residents. For USA1, the bomber planned to travel

"from Gaza, infiltrate Israel, and head to a central Israeli location to detonate himself." In addition, USA2 also had attackers who traveled from the West Bank to the target location. "Go to Jerusalem from the West Bank, find Yafo St, detonate himself and others." Finally, with SA3, the plan was to pay a Palestinian driver to smuggle the bomber and the explosives into Israel. Once in Israel, it shared that the bomber made his way to the bus stop near the target area and planned to detonate the device from there.

The would-be suicide bomber's plan was to pay a Palestinian driver who was a resident of the Old City that routinely smuggled Palestinians into Israel and to smuggle him and the explosives he was carrying into Israel. Once in Israel, he planned to make his way to the bus stop near the Haifa area checkpoint junction to detonate an explosive device.

Recruitment. Another category was the recruitment performed by the organizers of the three unsuccessful attacks. Similar to the networking category, three different minor themes were discovered: (a) Fatah organization, where USA1 was planned by the Fatah organization; (b) unemployed suspect, where USA2 involved an "unemployed Palestinian from the northern part of the West Bank;" and (3) Islamic Jihad network, where USA3 was linked to the Islamic Jihad network and other terror organizations outside of Israel. "The would-be suicide bomber was connected to the Islamic Jihad network, which is connected to other terrorist organizations outside of Israel as well as being connected to governments that sponsor Islamic terrorism." There was very little information about the identity and background of the attackers.

*Financing.* Another category was the financial aspect of the category. Only one minor theme emerged, which was the report that one unsuccessful attack was funded by the Government of Iran through the Islamic Jihad network. It was reported that USA3 was funded by the Iranian Government through the Islamic Jihad network, but the full transaction did not go through; however, portions of the \$1.8 million were still transferred and used for the attack.

One month before the foiled attempt, the Government of Iran tried to send 1.8 million dollars to the Islamic Jihad network. Israeli authorities were able to stop some of the money from being transferred into the West Bank, but not all of it.

Operational planning. The sixth category of the preattack phase was operation planning. From the three analyzed unsuccessful attacks, two minor themes emerged that received one occurrence each. For the first minor theme, tamper security and attack a populated site, USA1 involved the plan to "tamper with border security fences to infiltrate Israel, then proceed to a populated part of central Israel." For the second minor theme, paying a driver to smuggle the suspect to Israel and help with the attack, USA3 involved the "bomber paying a driver who was known to smuggle Palestinians from the West Bank to Israel \$200 New Israeli Sheqel (NIS)."

**Weapons procurement.** The seventh category was planning in terms of weapons procurement. Under this category, one major theme was formed with two occurrences, where two unsuccessful attacks employed 5 kg of explosives. USA1 had a "5 kg waistworn explosive from Fatah," while in USA2, 5 kg of explosives was procured.

*Operational preparation.* The eighth category was the operational preparation of the attempted attacks. The final category as analyzed from the terrorist activity data collection worksheet had one major theme, detonating at a populated site; and one minor theme, paying a driver to smuggle the suspect to Israel and help with the attack.

Major Theme 3: Detonating at a populated site. USA1 plan involved executing the attack at a much populated and crowded area. The plan entailed tampering "with border security fences to infiltrate Israel from Gaza, then proceed to a populated part of central Israel and detonate himself in an undisclosed central Israeli location, presumably Jerusalem." USA2 involved obtained an explosive to detonate at a commercial or populated street. "Obtained the explosive from an unknown source, ask local Arabs where Yafo Street was and if there were police or military forces there, then detonate somewhere on the street."

Minor Theme 12: Paying a driver to smuggle the suspect to Israel and help with the attack. USA3 entailed hired a driver that would smuggle the bomber to Israel at all costs. "The would-be bomber found a driver who would smuggle him into Israel no questions asked."

**Site data collection worksheet.** The second data source for the unsuccessful attacks was the site data collection worksheet. From the content analysis of this data source, only three framework categories emerged. There were one major theme and three minor themes. Table 8 contains the breakdown of the results from the content analysis of the site data collection worksheet.

Table 8

Result Breakdown from the Site Data Collection Worksheet of the Unsuccessful Attacks

Framework categories	Themes	No. of occurrences
1. Networking and	Islamic Jihad Movement to	1
indoctrination	get revenge	
3. General planning	Dense location with high concentration of religious	3
	Jews	
7. Weapons procurement	5 to 7 kg explosive device	1

*Networking and indoctrination.* The first category was networking and indoctrination of the attempted attacks. Only one minor theme emerged, which was the Islamic Jihad Movement to get revenge. USA3 involved different motives and objectives for the terror occurrence. The attack on March 21, 2006 was planned and executed by the Islamic Jihad Movement in order to interrupt the Israeli elections as well as contract revenge for a young Palestinian girl who was previously killed from a raid.

Police believe that one of the men was an operative from the Islamic Jihad Movement of Palestine, who planned to detonate a bomb in Tel Aviv, in order to disrupt the Israeli elections and to get revenge for a 10-year-old Palestinian girl, who was killed during an Israel Defense Forces (IDF) raid.

General planning. The third category was general planning of the attempted attacks. In all three attacks, the bombers searched for a dense location with high concentration of religious Jews, which was the first major theme in the site data collection worksheet of the unsuccessful attacks. USA1 was planned in order to affect an area with a high concentration of religious Jews. "Target city has a high concentration of

religious Jews, as well as being a location that was contested by the Arab world and Israel." USA2 was also planned to cause distress to religious Jews. The attack was targeted to destroy commercial sites and locations with dense populations.

Target city has a high concentration of religious Jews, as well as being a location that was contested by the Arab world and Israel. Yafo Street is a highly-trafficked road and has a dense tourist population.

Dense commercial location with hotels and restaurants, has been a site of previous attacks, and is a location in Jerusalem, which has been religiously contested.

USA3's location was chosen due because it was public and its composition of innocent individuals. It was reported that if the attack was executed as planned, the Israeli elections would have been heavily disrupted.

The target site was chosen because it would be a public location with a lot of innocent people. If the attack did happen, it could have scared people into staying home on election day. The transportation route was chosen because the driver knew how to avoid security and smuggle in Palestinians who were working illegally.

Weapons procurement. The seventh category was the weapons procurement of the groups who attempted the attacks. Again, only one minor theme emerged, which was the use of a 5 to 7 kg explosive device. USA3 involved obtaining a 5 to 7 kg explosive device. "After the men were arrested, the van was searched and an explosive device

between 5 and 7 kg was discovered."

Questionnaire into suicide bombing events. The third source was the questionnaire into suicide bombing events where information about the three unsuccessful attacks were analyzed. From the content analysis of this source, only six of the nine categories emerged. There were three major themes and five minor themes.

Table 9 contains the breakdown of the results from the analysis of the questionnaire.

Table 9

Result Breakdown From the Questionnaire of the Unsuccessful Attacks

Framework categories	Themes	No. of occurrences
1. Networking and	Volunteer from the Gaza	1
indoctrination	Strip	
	Islamic Jihad Movement of	1
	Palestine	
3. General planning	Densely populated area or	2
	attack site	
4. Recruitment	Fatah organization	1
	None reported	1
6. Operational planning	Hiring of a driver to bring	1
	the bomber to the location	
7. Weapons procurement	Assembled in Israel	2
8. Logistical preparation	Attempted to walk	2

Networking and indoctrination. The first category, networking and indoctrination, had two minor themes: (a) volunteer from the Gaza Strip and (b) Islamic Jihad Movement of Palestine. Each of the themes only received one occurrence. For Minor Theme 1: Volunteer from the Gaza Strip, USA1 had a volunteer bomber from the Gaza Strip who had previously launched successful attacks. "The thwarted bomber was from the Gaza strip which has launched rockets and carried out attacks from that location

before presumably volunteering." For Minor Theme 2: Islamic Jihad Movement of Palestine, USA3 was supposedly affiliated with the Islamic Jihad Movement of Palestine. "The suspect affiliated himself with the Islamic Jihad Movement of Palestine and assumedly obtained an explosive from them, then boarded a van."

General planning. The third category was the general planning of the three unsuccessful attempted attacks. The major theme that emerged was that the plan was to attack densely populated area or attack site, which received two occurrences. Another general plan discovered was from the USA2, where the aim was to affect a densely-populated location or area with many tourists and citizens and cause disruption, "Densely populated . . . many tourists, residents of various faiths and citizenship. Densely populated area with high chances of achieving goal, all types of people." USA3 was also performed because of the popularity and projected population of the attack site. "The target site was selected because it was a bus stop near a popular junction and would be crowded."

Recruitment. Another category was the recruitment followed by the groups, where two minor themes emerged. The first minor theme was that the recruitment was made by the Fatah organization, "Fatah group planned and attempted to execute their plan." The second minor theme was that no other details about the recruitment emerged. USA2 had no actual recruitment details or information reported; however, it was only known that "he worked in central Israel and may have commuted through and visited before. If the attempted bombing was by Hezbollah, it would be headquartered in

Lebanon."

Operational planning. The sixth category was the operational planning of the groups. From the content analysis of the questionnaire, only one minor theme emerged, which was one unsuccessful attack, where a driver was hired to bring the bomber to the location. Thus, for the USA3, a driver was hired to take the bomber to the actual location of the attempted attack, "The plan was to pay a driver \$200 INS to take him to the location."

Weapons procurement. The seventh category was weapons procurement, which had one major theme. Two unsuccessful attacks had their weapons assembled and generated in Israel. For USA1, the attackers had their 5 kg explosives assembled in Gaza. "Explosives were presumably assembled in Gaza. The device itself seemed to follow a trend of 5 kg explosive systems outfitted for discretion like other bombing events." On the other hand, in regard to USA2, "explosives were presumably assembled in the West Bank or in a site in Jerusalem."

Logistical preparation. The final category was the logistical preparation, which had one major theme. Two unsuccessful attackers attempted to reach their target point by foot. The USA1 logistical preparation was the attacker attempted to only reach the location by foot, "The bomber attempted to walk, further travel plans unknown." Similarly, the bomber for the USA2 also attempted to reach the location by walking:

The bomber attempted to walk. The suspect was caught with the explosive somewhere outside the Old City by foot. No specifics were said on exactly where,

but it can be assumed he was fairly close to the destination. Place of origin was somewhere in the northern part of the West Bank.

## **Cross-Case Analysis**

From the analyses of the three data sources, which include the terrorist activity data collection worksheet, site data collection worksheet, and questionnaire into suicide bombing events, the nine preattack phases emerged in the successful and unsuccessful attacks, but they were more consistently present in the successful bombing cases. Based on the findings above, the nine preattack phases seemed to have played a vital role in the actual results of the attacks. For networking and indoctrination, it was found that the Hamas organization supported two of the three successful attacks examined in the study. Furthermore, I discovered that two of the successful attacks did not practice or perform any special training in executing the attack. In general, the successful attacks were executed by having skilled handlers and bombers who were able to ensure a complete coordination of factors where all plans were followed accordingly, such as the time of attack, disguise, and transportation.

For the funding of the successful attacks, it was established that all three attacks were financially supported by large terror organizations and groups. In addition, the successful attacks were carefully planned by scouting the sites or location before the execution. Furthermore, to ensure the damage and destruction, the weapons were created by the group's chief bombmaker and used explosive devices with other sharp metal objects to impose the most damage. Logistically, successful attackers mostly used

disguises appropriate to the target demographics and location. Finally, the successful attackers performed thorough research and planning of target sites, which were led by the handlers. The successful attackers mainly targeted a site that had a high probability of casualties at a certain time.

As for the unsuccessful attacks, the nine preattack phases were also present; however, it was very much evident that when compared to the successful attacks, the details and information of the planning were vague and inadequate. Network and indoctrination included limited details about the attackers and suspect. Only one attacker was said to have been trained by the Fatah organization. The general plan of all three unsuccessful attacks was to travel to the target site to detonate themselves and the locals. Funding information was also unavailable and only one attack was believed to have been supported by the Government of Iran through the Islamic Jihad network. The weapons were 5-kg explosives, which were planned to be detonated in crowded and populated sites. From the questionnaire into suicide bombing events, analysis indicated that the weapons were assembled in Israel and attackers attempted to walk by foot to the target sites. From the themes found from the unsuccessful attacks, the actual and concrete planning and implementation of strategies by the attackers were deficient. The successful attackers had handlers and completely secured themselves to travel to the target site without much barrier. In the unsuccessful attacks, the attackers travelled by foot. Furthermore, no disguises and explosive cover ups were reported as compared to the successful attacks.

#### **Summary**

In this multiple case study, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. Through content analysis and cross-case analysis, I analyzed data from the terrorist activity data collection worksheet, site data collection worksheet, and questionnaire into suicide bombing events of both the successful and unsuccessful attacks in Israel. The summary of the findings is discussed based on the overall findings from the three data collection sources at each phase. The multiple-case analysis allowed me to discover the themes that addressed the use and effectiveness of Freeman et al.'s (2010) preattack phases in three successful and three unsuccessful attacks. Based on the analyzed data, 13 major themes and 21 minor themes emerged for the successful attacks, whereas seven major themes and 20 minor themes emerged for the unsuccessful attacks.

For the three successful attacks, findings indicated that all nine framework phases were present in the successful attack findings; however, general planning, financing, and operational preparation had the most occurrences. For the first phase, networking and indoctrination, attacks were carried out by the Hamas group and the al-Aqsa Martyrs Brigade, who were affiliated with the Fatah organization. The al-Aqsa Martyrs Brigade carried out a successful attack to condemn the treatment in refugee camps. The military wing of the Fatah organization and the Hamas organization carried out suicide attacks is response to the assassinations of their two leaders. For the second phase, terrorist

training, two of the three attacks had no special training conducted, while one successful attack involved excellent training and preparation. For the third phase, general planning, findings indicated that the successful attacks had complete coordination and the plans were followed as intended, such as the time of attack, disguise, and transportation. In addition, the attackers targeted sites that had a high probability for causalities, such as a synagogue located in an ultra-Orthodox neighborhood and Downtown Triangle district in Jerusalem.

The fourth phase was recruitment and results showed that the attackers came from a refugee camp and an attack was in response to the security attacks and operations conducted near Bethlehem. In addition, findings indicated that attackers volunteered for the suicide bombing and the attackers came from one neighborhood, which made recruitment easier. The fifth phase was financing and all three attacks were reportedly funded by large organizations, such as Fatah organization, Hamas, and Arab Bank. The sixth phase was operational planning and findings indicated that for two of the three attacks, the suicide bombers scouted the attack site prior to the actual implementation. In addition, the attackers planned for a large number of casualties at a specific time and location. The attackers also disguised themselves as tourists to stay unnoticed.

Furthermore, the attacker and handler used a car that was going to the target location and security disruptions were also mitigated.

The seventh phase was weapons procurement where three different successful attacks had three different methods of weapons procurements: (a) assembled from camp

and transported to target site, (b) using of explosive devices with other sharp metal objects to impose the most damage, and (c) created by a group's chief bombmaker. The eighth phase was logistic preparation, where in two of the three attacks, the attackers reportedly used disguises that were appropriate to their target demographics and location and in another attack, attackers formed a cell within their local target area for easier mobility. In addition, in an attack, the bomb was hidden in a guitar case. The ninth phase was operational preparation, where findings indicated thorough research and planning of target site, which was led by the handlers. One of the attack involved the handler and bomber moving swiftly from one territory to another because of minimal security barriers while traveling to the target location. Emphasis was also placed on the importance for the terror groups in finding a crowded and packed target location.

For the three unsuccessful attacks, findings indicated that all nine framework phases were present, similar to the successful attack findings; however, the details and information of the planning were vague and inadequate. For both the first phase, networking and indoctrination, and fourth phase, recruitment, findings were similar, where the unsuccessful attacks were organized by diverse groups, specifically the Fatah organization and the Islamic Jihad network. Furthermore, Islamic Jihad Movement of Palestine had planned to detonate a bomb in Tel Aviv in order to disrupt the Israeli elections and to get revenge for a 10-year-old Palestinian girl, who was killed during an IDF raid. Suspects in the unsuccessful attacks included an individual who was unemployed and a volunteer bomber from the Gaza Strip who had previously launched

successful attacks. For the second phase, terrorist training, for an unsuccessful attack, the Fatah organization handled, supported, and provided training; and for another unsuccessful attack, the bomber had no relevant training. For the third phase, general planning, findings indicated that all three unsuccessful attackers attempted to travel to the target site to detonate themselves and the residents. In addition, in all three unsuccessful attacks, the bombers searched for a dense location with high concentration of religious Jews.

Findings for the fifth phase, financing, indicated that one unsuccessful attack was funded by the Government of Iran through the Islamic Jihad network. The sixth phase was operational planning and findings indicated the plan to tamper with border security fences to infiltrate Israel, then proceed to a populated part of central Israel. In addition, operational planning included paying a driver to smuggle the suspect to Israel and the driver helping with the attack. The seventh phase was weapons procurement where two unsuccessful attacks involved the weapons being assembled and generated in Israel and the use of 5 kg explosives. The eighth phase was logistic preparation, where two unsuccessful attackers attempted to reach their target point by foot. The ninth phase was operational preparation, where findings indicated the plan to detonate at a populated site, and paying a driver to smuggle the suspect to Israel and help with the attack.

In Chapter 4, I included the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and a summary. In Chapter 5, I include the

interpretation of findings, limitations of the study, recommendations, implications, and a conclusion.

### Chapter 5: Discussion, Conclusions, and Recommendations

In this multiple case study, I explored specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel. I collected data using a researcher-created terrorist activity data collection worksheet where I collected archival data from a private intelligence company's database in Israel on the six cases, a researcher-created site data collection worksheet where I collected data at each site of the three successful and three failed suicide bombing attack locations, and a researcher-created questionnaire into suicide bombing events where I collected open source information or public data that was written or on the Internet about the six cases. In this study, I answered one central research question, which was the specific patterns within each of Freeman et al.'s nine preattack phases that consistently emerged in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel.

Using single-case analysis and cross-case analysis, I found 13 major themes and 21 minor themes for the successful attacks and seven major themes and 20 minor themes for the unsuccessful attacks. Findings indicated that all nine Freeman et al. (2010) phases were present in the successful attack findings; however, general planning, financing, and operational preparation had the most occurrences. On the other hand, for the three unsuccessful attacks, findings indicated that all nine framework phases were present, similar to the successful attack findings; however, the details and information of the

planning were vague and inadequate. The findings are discussed in more detail in the interpretation of the findings section. In Chapter 5, I present the interpretation of findings, limitations of the study, recommendations, implications, and a conclusion.

## **Interpretation of the Findings**

One central research question was answered: What are the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerge in the adversary planning process for each of the six successful or failed suicide bombing cases in Israel? The findings for this study are interpreted in the context of Medby and Glenn's (2002) IPB analytic framework, Landree et al.'s (2007) ModIPB framework, and Freeman et al.'s (2010) nine preattack phases, as well as the literature review. The themes or patterns that emerged from the analysis are categorized as major and minor themes, based on the number of occurrences. Some of the aspects that were taken into consideration when comparing the six case studies were the year of attack, attack outcome, city of attack, bomber casualty, civilian casualty, and target type. The most discernable themes that emerged from the analysis are discussed, first in terms of the successful attacks, then in terms of unsuccessful attacks, and finally, in terms of overall findings across all the attacks that were under investigation.

# **Successful Attacks**

The patterns and the major and minor themes that evolved from the analysis of the three case studies that pertained to the successful attacks are discussed. The first data source, the terrorist activity data collection worksheet, revealed that all nine categories of

Freeman et al.'s (2010) preattack phases were present in the successful attacks. The second data source, site data collection worksheet, revealed only the following two categories: networking and indoctrination; and general planning. The third data source, the questionnaire into suicide bombing events, showed important patterns within eight of the nine phases postulated by Freeman et al., except the terrorist training phase.

Networking and indoctrination. This phase pertains to cell members being introduced and exposed to radical doctrine through various events, such as religious instruction, meeting, cohabitation, and social activities (Freeman et al., 2010). In this study, findings indicated that all three successful attacks revealed networking and indoctrination as prevalent patterns. In this phase, attacks were carried out by the Hamas group and the al-Aqsa Martyrs Brigade, who were affiliated with the Fatah organization. The al-Aqsa Martyrs Brigade carried out a successful attack to condemn the treatment in refugee camps. The military wing of the Fatah organization and the Hamas organization carried out suicide attacks is response to the assassinations of their two leaders.

Findings pertaining to condemning the treatment in refugee camps and response to the assassination of two leaders are consistent with what has been reported in the literature. Perry et al. (2013) examined suicide bombings in four Israeli cities: Jerusalem, Haifa, Tel Aviv, and Netanya, and focused on three terrorist groups: Hamas, al-Asqa Martyrs' Brigade, and the Palestinian Islamic Jihad, which are terrorist groups noted in this multiple case study findings. Perry et al. related that attacks following IDF operations were more of a revenge tactic from terrorists due to an arrest or assassination of a known

terrorist. Similarly, Kennedy (2006) noted that suicide terrorists have certain personality traits that may lead them to kill themselves and murder others, such as the desire for revenge for prior perceived injustices perpetrated by government entities or other rivaling groups. Hassan (2009) argued that although religion may play a key role in recruiting and motivating potential future suicide bombers, the driving force is mainly attributed to revenge, retaliation, humiliation, politics, and altruism. Findings that the attacks were carried out by the Hamas group and the al-Aqsa Martyrs Brigade, who were affiliated with the Fatah organization, are consistent with Pape's (2008) findings that almost all of the suicide attacks occurred as part of organized campaigns and not as isolated incidents. Pape found that based on 315 separate attacks, 301 had roots traced to large, coherent political or military campaigns (p. 130).

Terrorist training. This phase often overlaps with phase one and include cell members' participation in organized terrorist activities (Freeman et al., 2010). In this study, findings indicated that two of the three attacks had no special training conducted, while one successful attack involved excellent training and preparation. The finding that two of the three attacks had no special training conducted does not conform to the prevalent trend that shows terrorists get highly specialized trainings to maximize success in their operations (Atran, 2006; Cummings & Cummings, 2012). However, the finding that the successful attack involved excellent training and preparation lends support to the predominant trend, which illustrates that most suspects associated with terrorist groups usually get specialized training before carrying out their attacks (Atran, 2006; Cummings

& Cummings, 2012). Altran related that that rarely are suicide attacks unmethodical or the targets unsystematically selected as individuals interested in carrying out a suicide terrorist attack perform hours of preoperational surveillance, tactical training, firearms and explosives training, as well as detailed planning of the clothing they will wear for the attack. Similarly, Cummings and Cummings (2012) emphasized that terrorism requires a great deal of planning such as 9/11, which required flight school training for at least eight individuals. When Fox (2014) used the AHP to assess Freeman et al.'s (2010) nine phases from a quantitative perspective, findings indicated that terrorist training, along with networking, planning, and operational prep composed over 65% of the ranking weights.

General planning. This phase pertains to making the decision to conduct a terrorist attack as well as the choice of a general target area or target set, such as ships, bars, U.S. citizens, and soldiers (Freeman et al., 2010). In addition, general shopping for potential targets is performed (Freeman et al., 2010). This was one of the phases that had the most number of occurrences as this phase was present in all three successful attacks. Findings in this study indicated that the successful attacks had complete coordination and the plans were followed as intended, such as the time of attack, disguise, and transportation. In addition, the attackers targeted sites that had a high probability for causalities, such as a synagogue located in an ultra-Orthodox neighborhood and Downtown Triangle district in Jerusalem.

These findings were consistent with the literature as Paul and Landree (2008) discussed these aspects of planning involving ease of access to target location; target features such as exact location to launch attack, times to launch and window of opportunity, as well as mobility of target; security issues like security measures, and presence of other population groups; and threats or barriers to the terrorist operation. In this study, the successful attackers chose accessible locations with minimum security and executed their attack plans when the places were heavily crowded. Perry et al. (2013) noted that the terrorist attacks are planned to hit target locations at times when they are most crowded. Due to the difficulty in knowing when the next attack will take place in Israel, Shaked (2016) related that counterterrorism actions involved increasing security personnel such as police officers, border police, and military personnel at major junctions, crowded places, and near Jewish communities in Judea and Samaria.

However, despite the underlying commonality of characteristics in these three successful attacks, the plans and executions reflect the differences in the terror attackers' approach and strategies. Paul and Landree (2008) also pointed out that the methodologies and strategies adopted by the terrorist groups might vary to suit their individual needs and goals. As results indicated, for SA1, attackers targeted civilian population at a Jewish Orthodox community at the end of religious class conducted on Jewish Sabbath. In this attack, the bomber used a disguise to blend in with the Jewish population at the venue, thus, avoided being suspected or detected. On the other hand, SA2 was executed at a restaurant during the evening hours when the site was heavily populated. The attack was

very well-planned and even included an efficient escape plan for the handler. For SA3, cell members who were permanent residents and had the ability to travel to the targeted area of Jerusalem were used. The cell members also had the knowledge and skills to navigate the target area.

Recruitment. This phase pertains to senior terrorist elements selecting and activating cell members for a certain terrorist operation (Freeman et al., 2010). Results in this study showed that the attackers came from a refugee camp and an attack was in response to the security attacks and operations conducted near Bethlehem. In addition, findings indicated that attackers volunteered for the suicide bombing and the attackers came from one neighborhood, which made recruitment easier. The finding that a suicide attack was in response to security attacks and operations conducted near Bethlehem is consistent with Hassan's (2009) argument that a key role in recruiting and motivating potential future suicide bombers is mainly attributed to revenge, retaliation, politics, humiliation, and altruism. The finding that attackers volunteered for the suicide bombing is in line with Freeman et al.'s discussion of the radicalization process that results in a group committed to an attack.

**Financing.** This phase pertains to funds being collected and allocated for a certain terrorist attack (Freeman et al., 2010). Findings in this study indicated that large organizations funded all three attacks, such as the Fatah organization, Hamas, and Arab Bank. This finding is in consistent with Pearl and O'Rourke's (2001) discussion of how money gets allocated for specific operations prior to the actual attacks to ensure proper

implementation of the plan. They provided the example of how money was allocated for the attack by al-Qa'ida on the U.S. Navy ship Cole on October 12, 2000. Bob (2017) reported that the IDF Chief of Military Intelligence, Major General Halevi, reported Iran's massive funding of terrorist groups that endanger Israel, sharing that Iran is funding Hezbollah \$75 million a year, while paying \$50 million of Hamas's budget, and approximately \$70 million to Islamic Jihad (para. 1).

Operational planning. This phase pertains to selecting the specific target, conducting detail reconnaissance of the target, and conducting specific operation planning such as the delivery and procurement methods (Freeman et al., 2010). Findings in this study indicated that for two of the three attacks, the suicide bombers scouted the attack site prior to the actual implementation. In addition, the attackers planned for a large number of casualties at a specific time and location. The attackers also disguised themselves as tourists to stay unnoticed. Furthermore, the attacker and handler used a car that was going to the target location and security disruptions were also mitigated.

Overall, findings are consistent with Landree et al.'s (2007) ModIPB first and second categories, approach avenues and ease of access, and target features, respectively. In regard to approach avenues and ease of access, Landree et al. related that well planned terrorist attacks require planning about how attackers will reach the target such as the use of scenarios about how attackers will be at a certain place at an exact time in order to carry out a coordinated attack or multiple attacks, or an attack against a moving target. In addition, Landree et al. noted that terrorists do not want to be identified; thus, planning

includes the exact paths they will take. The researchers noted that terrorists who plan overt attacks may be concerned about whether they will be seen, the presence of physical obstacles, and time and place of the greatest risk where they may be seen by security forces or pedestrians. In regard to target features, Landree et al. noted that elements of target features include attack and target, where attack pertains to the possible locations from which to launch an attack and possible times to launch an attack, whereas target includes the mobility and variability of the target.

The finding that the suicide attackers scouted the attack site is consistent with Berman and Laitin's (2005) theory of how adversaries select hard and soft targets. The authors described soft targets as those places with minimum military security or protection but frequented by visitors, such as nightclubs, schools, malls, and movie theaters. The finding of suicide attackers targeting a large number of casualties at a definite time and location is consistent with Ganor's (2015) reporting that terrorists choose their target areas based on the potential for damage in terms of casualties, physical or property, economic, and related costs. Perry et al. (2013) also examined terrorist groups' spatial preference patterns, which emphasized how suicide attackers chose accessible crowds. Perry et al. also found that several attacks correlated with Jewish holidays.

**Weapons procurement.** This phase pertains to obtaining and receiving the materials for the construction of explosives or weapons that will be used in the attack, such as accelerants, detonators, fertilizers, and rockets (Freeman et al., 2010). Findings in

this study indicated that three different successful attacks had three different methods of weapons procurements: (a) assembled from camp and transported to target site, (b) using of explosive devices with other sharp metal objects to impose the most damage, and (c) created by a group's chief bombmaker. The overall findings confirm researchers' arguments that terrorist groups need access to essential weaponry and they need to have the ability to operate undetected by intelligence agencies in order to carry out their attacks (Bennie & LeMiere, 2008; O'Rourke, 2010). The findings lend support to Dolnik's (2007) argument, which emphasized that terror organizations often carefully analyze the potential targets to identify the vulnerabilities and exploit those to their advantage for terror operations. Pape (2008) argued that what renders suicide bombing more lethal than other forms of terror attacks is that the attackers are ready to die on the mission. As such, their unique methods of attack are hard to detect and require them to die in order to achieve their goals. Findings are also in line with the third IPO step, which refers to identifying and evaluating threatening groups or people in relation to weapons that they may use, such as chemical weapons, small arms, and explosives; as well as the tactics they may use in their planned activities, such as suicide bombing (Sullivan & Wirtz, 2008).

**Logistical preparation.** This phase pertains to logistical actions that are taken to prepare for the terrorist attack, including safe house rental, vehicle and document procurement, and electronics purchase (Freeman et al., 2010). Findings in this study indicated that in two of the three attacks, the attackers reportedly used disguises that were

appropriate to their target demographics and location and in another attack, attackers formed a cell within their local target area for easier mobility. In addition, in one attack, the bomb was hidden in a guitar case. These findings are in line with Rudee's (2014) reporting that terrorists will use disguises to carry out attacks, for example, in a foiled terror attack in Tel Aviv, a woman hid an explosive belt in her clothes while she was disguised as a pregnant Jewish woman. Hoffman (2003) reported that suicide bombers are middle-aged, young, married, unmarried, some of them have children, some are women, and even children are being trained for martyrdom. As a result, Hoffman shared that there is no clear profile of suicide bombers, who sometimes disguise themselves. Hoffman noted that as male shaheed or martyrs have worn green IDF fatigues, have dressed as haredim or ultra-Orthodox Jews, and have worn long-haired wigs to look like hip Israelis rather than threatening Arabs. Similar to Rudee, Hoffman noted that a few women tried to camouflage bombs by strapping them to their stomachs to fake pregnancy. Rudee related that addressing these lethal trends within counterterrorism is challenging.

Operational preparation. This phase pertains to physical preparations for the imminent terrorist attack, including explosive construction, vehicle alteration, specific explosives training, and multimedia preparation and creation (Freeman et al., 2010). Findings in this study indicated thorough research and planning of target site, which was led by the handlers. One of the attack involved the handler and bomber moving from one territory to another because of minimal security barriers while traveling to the target

location. Emphasis was also placed on the importance for the terror groups in finding a crowded and packed target location. These findings are similar to those found for operational planning and are also consistent with Landree et al.'s (2007) ModIPB approach avenues and ease of access, and target features categories. Thus, well planned terrorist attacks require planning about how attackers will reach the target. In addition, findings pertaining to the selection of crowded and packed locations confirm Berman and Laitin (2005) discussion on soft target selection due little or no military protection or security.

#### **Unsuccessful Attacks**

The patterns and the major and minor themes that evolved from the three-case study analysis that pertained to the unsuccessful attacks are discussed. Data analysis of the same three sources revealed that the terrorists had very little information and lacked proper planning and attack strategies. The first data source, the terrorist activity data collection worksheet, had no information on logistical preparation. Data analysis of the second source, site data collection worksheet, only showed three patterns: (a) networking and indoctrination, (b) general planning, and (c) weapons procurement. Data analysis of the third source revealed only six of the categories under Freeman et al.'s (2010) nine phases of preattack phases.

**Networking and indoctrination.** Findings for this phase were similar to the findings for the recruitment phase, where the unsuccessful attacks were organized by diverse groups, specifically the Fatah organization and the Islamic Jihad network.

Furthermore, Islamic Jihad Movement of Palestine had planned to detonate a bomb in Tel Aviv in order to disrupt the Israeli elections and to get revenge for a 10-year-old Palestinian girl, who was killed during an IDF raid. Suspects in the unsuccessful attacks included an individual who was unemployed and a volunteer bomber from the Gaza Strip who had previously launched successful attacks. The findings lend support to Hassan's (2009) argument that often politics, revenge, retaliation, humiliation, or altruism act as driving forces behind terrorist attacks rather than religious fanaticism.

Terrorist training. Findings indicated that for an unsuccessful attack, the Fatah organization handled, supported, and provided training; and for another unsuccessful attack, the bomber had no relevant training. The finding pertaining to the lack of training is unlike conventional terrorist practices that show terrorists to be very methodical and meticulous in selecting their target locations after spending rigorous hours in preoperational surveillance, training, and detailed planning of every aspect of the attack, including the clothes they will wear (Atran, 2006; Freeman et al., 2010). Compared with the three successful attacks investigated in this study, where the bombers received extensive training, the lack of training may have contributed to the bomber's failure to successfully execute the mission.

General planning. Findings indicated that all three unsuccessful attackers attempted to travel to the target site to detonate themselves and the residents. This finding support Pape's (2008) reporting that the attackers do not expect to survive and often employ lethal methods of attack. Similarly, Paz (2005) noted that because the death of the

perpetrator is a desirable or acceptable outcome of the attack, more complex missions can be attempted than would otherwise be the case if an escape route was needed. Thus, Paz (2005) related that the most difficult aspect of any type of terror attack is the escape, which is unnecessary in a suicide attack. With no need for an escape plan, route, or means of transportation, terrorists can plan and execute missions that otherwise might be too difficult. In addition, in all three unsuccessful attacks, the bombers searched for a dense location with high concentration of religious Jews. This finding reiterates Atran's (2003) argument that suicide bombers utilize terrorism and target civilians to "effect political change" (p. 1534). The attacks may have been unsuccessful as results showed a general lack of proper planning, training, or preparation for the attacks.

Recruitment. Findings in this phase were similar to findings in the networking and indoctrination phase, where the unsuccessful attacks were organized by the Fatah organization and the Islamic Jihad network. Islamic Jihad Movement of Palestine had planned to detonate a bomb in Tel Aviv in order to disrupt the Israeli elections and to get revenge for the death of a 10-year-old Palestinian girl, a suspect was unemployed, and a volunteer bomber had previously launched successful attacks. In regard to these findings, while researchers have found that "poverty and economic conditions are not directly correlated with the occurrence of terrorism" (Benmelech, Berrebi, & Klor, 2012, p. 113; Deloughery et al., 2013). Benmelech et al. (2013) found that "high levels of unemployment enable terror organizations to recruit better educated, more mature, and more experienced suicide terrorists, who in turn attack more important Israeli targets" (p.

113). Findings are also consistent with Hassan's (2009) reporting about revenge being a main reason for terrorist attacks.

Financing. Findings indicated that one unsuccessful attack was funded by the Government of Iran through the Islamic Jihad network. However, 1 month before the foiled attempt, Israeli authorities were able to stop some of the money from being transferred into the West Bank, but not all of it. Freeman et al. (2010) discussed the importance of financing before a final suicide attack. The suicide attack may have been unsuccessful due to authorities being able to stop some of the money and possibly anticipating that an attack was likely to occur, which may have allowed them to use counterterrorism strategies.

Operational planning. Findings indicated the plan to tamper with border security fences to infiltrate Israel then proceed to a populated part of central Israel. In addition, operational planning included paying a driver to smuggle the suspect to Israel and the driver helping with the attack. These themes have parallels to some of the successful attacks that were investigated in this study. For example, for SA1, the bomber used a car to reach the destination and the handler assisted the bomber to circumvent the security checkpoints for leaving Bethlehem. It is unclear whether paying the driver to help with the attack contributed to the foiled attack. However, parallels between successful and failed suicide attacks show the presence of certain characteristics irrespective of the outcomes. This might have important implications for counterterrorism officials who can look at these overall cases and identify the factors that terrorists resort to or utilize for

their operations. Fox (2014) emphasized the need for law enforcement officials to learn about adversary planning so that they can predict their moves to some extent and prevent the attacks by adopting necessary security measures. Weinstein et al. (2009) also emphasized the urgency for developing tools and techniques for detecting and tracking terrorist organizations and networks and recognizing their potentials for terror attacks.

Weapons procurement. Findings indicated that two unsuccessful attacks involved the weapons being assembled and generated in Israel and the use of 5 kg explosives. Even though the attacks were unsuccessful, the use of explosives is in line with the literature as terrorist groups need access to essential weaponry and they need to have the ability to operate undetected by intelligence agencies in order to carry out attacks (Bennie & LeMiere, 2008; O'Rourke, 2010).

Logistical preparation. Results showed two unsuccessful attackers attempted to reach their target point by foot. Dzikansky, Kleiman, and Slater (2012) noted that the bulkiness of explosives makes it more challenging for suicide bombers to walk normally, so they might arouse suspicion. Dzikansky et al. noted that due to this constraint, suicide bombers tend to focus on soft targets or civilian targets. To reduce the likelihood of being caught, suicide bombings are sometimes replaced with suicide car bombings as a larger amount of explosives can be placed in the vehicles.

**Operational preparation.** Findings indicated the plan to detonate at a populated site, and paying a driver to smuggle the suspect to Israel and help with the attack. Using a populated site is consistent with Perry et al.'s (2013) findings of suicide attacks in Israel

where terrorists targeted accessible crowds, which did not have to be large. Perry et al. noted that suicide bombers were content to target groups of dozens or even smaller. In addition, the researchers noted that suicide attackers were also very repetitive in target decisions, for example, more than 1 in 3 attacks were repeat strikes on locations previously targeted.

### **Cross-Case Analysis**

Based on content analysis, the above sections provided a comprehensive exploration of the differences within and between the cases. In this section, I will identify some of the parallels across all the cases to provide overall patterns that are discernable in the nine phases of preattack adversary planning and how it relates to the conceptual framework and the literature. A comparison between the successful and failed attack cases revealed that the successful attackers' adversary planning process more readily emerged in Freeman et al. (2010) nine preattack phases than those of their failed counterparts'. In addition, the unsuccessful attackers failed to show similar consistency and many of the categories from the nine phases were absent across the three data sources for the unsuccessful cases.

Within the networking and indoctrination phase, the successful cases showed the support of Hamas group for two of the attacks and Fatah group for one of the attacks. Researchers have shown how large terror organizations provide funding and support for suicide attacks (Pape, 2008; Kennedy, 2006). Tal (2002) discussed indoctrination, where some suicide bombers are put through religious indoctrination, where it is stressed that

their act of self-sacrifice is an act of supreme sacrifice in the name of jihad. However, Tal pointed out that indoctrination has become less common because the ongoing confrontations between Palestinians and Israelis, which has resulted in causalities, severe economic decline, closures, curfews, and roadblock. These factors have resulted in increased despair and frustration, most of which is directed at Israel (Tal, 2002). As a result, Tal noted that this has increased people's desire to volunteer for and carry out suicide attacks, thus, rendering indoctrination unnecessary. In this study, the unsuccessful attacks lacked information on networking and support groups who financed the attacks.

Contrary to conventional practices amongst terrorists, two of the attacks that were financed by the Hamas group did not involve any training. One successful attack revealed that the bomber received extensive training for the suicide mission. However, the attacks, in general, were coordinated by skilled handlers who helped the bombers in completing their attacks. The successful cases also indicated that the handlers carefully scouted the sites prior to the attack to ensure maximum casualty. Hoffman (2003) discussed the use of handlers. According to Hoffman, terrorist organizations such as Hamas, the Palestine Islamic Jihad, or the al-Aqsa Martyrs Brigade, recruited the bomber, conducted reconnaissance, prepared the explosive device, and identified a target. Hoffman explained that if the target is guarded or protected, any crowded place nearby will do. Thus, suicide bombers most often have a handler and in some cases, a handler has used a cell phone or other device to trigger the blast from a distance (Hoffman, 2003).

Although general planning was present in all six studies, the successful attacks showed more detailed planning that involved multiple factors. For instance, for SA1, the bomber wore a disguise to blend in with the teen students who were attending religious classes and who congregated at the target site at the end of their classes, SA2 bomber hid his explosives inside a guitar case, and SA3 attackers were deliberately chosen from a particular cell where the members held permanent resident cards and could access the target site without any hindrances. General Planning was present in all the unsuccessful cases, which showed important trends like how the attackers planned to arrive at their destinations and how they wanted to target densely populated areas with high concentration of Jews. One of the important themes that became evident across most of the studies was that the attackers targeted sites at specific times when maximum number of civilians were present at the locations. Coupled with the intension to inflict maximum damage, another theme evolved, which showed that the attackers used bombs made by chief bombmakers that were loaded with sharp metals to have a greater effect when they were detonated. Benmelech et al. (2012) claimed that in designing efficient counterterrorism policies, the most common counterterrorism policies aim to incapacitate terror organizations by cracking down on their members and enacting security measures that decrease the probability of success of a planned attack.

Another theme that emerged from the analysis revealed a significant difference in approach between the successful and the unsuccessful case studies. The successful attacks demonstrated thorough planning and research, for instance, for SA1, suicide

bombers used a car to arrive to the location and for SA2, attackers had an escape plan for the handler. In comparison, two of the attackers from the unsuccessful attacks chose to travel to the destinations by foot. Hoffman (2013) reporting is in line with these findings as the author noted that the human weapons system can effect last-minute changes based on the ease of approach, the paucity or density of people, and the security measures that are in place.

Results showed some of the motives behind the attacks. The attacks were conducted for drawing government's attention to generate political changes, disrupting elections, or for taking revenge for atrocities that the attackers thought were inflected by Israelis. For example, SA2 was planned to avenge the assassination of two of the Hamas leaders and USA1 was planned to avenge the death of a Palestinian girl who became a victim of a raid in her camp. Consistent with the literature, a strong motive for suicide attacks is revenge, such as revenge for the deaths of friends, fellow cadres, or relatives at the hands of Israeli forces (Hassan, 2009; Tal, 2002).

### **Limitations of the Study**

Factors that I considered in relation to the trustworthiness that arose from the execution of this multiple case study include the type of study, the chosen case studies, types of data sources, assumptions, and analysis of the results. There were several limitations of this study. Even though I used different kinds of cases, one possible limitation was generalizing the results since a maximum variation sampling and purposeful random sampling of only six Israel suicide bombing cases were used and the

results of the study were limited to suicide attacks cases in Israel. Therefore, the results of the study may not be generalizable to other forms of terrorist attacks or to terrorist attacks in other countries as the majority of the cases were targeted towards locations in and around Jerusalem. Yin (2012) related that a single or small set of cases cannot be statistically generalized as that is not the aim of such studies. Instead, Yin noted that case studies tend to generalize to other situations based on analytic claims. Yin discussed a conceptual claim where researchers show how the findings from their study have informed the relationship among a particular set of concepts, theoretical constructs, or sequence of events. Yin related that the second step pertains to researchers applying the same theoretical propositions to implicate other situations outside the completed case study where similar concepts, constructs, or sequences might be relevant. Hence, although the findings from this multiple case study cannot be statistically generalized, they could have implications for other situations based on analytical claims.

A second possible limitation was issues of missing or incomplete data on the suicide bombing cases. However, this possible limitation was addressed by only including cases that had sufficient data available from multiple sources so that I was able to gather data on Freeman et al. (2010) nine phases. A third limitation pertained to bias in the selection of the suicide bombing cases. I am CEO of the private intelligence company in Israel where the case study data were obtained. I addressed this limitation by obtaining the community partner's cooperation and data use agreement. I used purposeful random sampling in selecting the three successful and three failed suicide attacks. I also used

specific strategies such as reflexivity where I revealed any experiences, biases, and values pertaining to the adversary planning process for each adversary success or failure in the Israel suicide bombing cases.

A fourth limitation was the difference in timeframe for successful suicide attacks and unsuccessful suicide attacks. As noted in Chapter 4, the successful attacks occurred in 2001 and 2002, whereas the unsuccessful attacks occurred in 2005 and 2006. The differences in years might be attributed to counterterrorist decision makers and operators having a better understanding of the nine preattack phases; thus, improving their counterterrorism strategies. In additions, the timeframe differences between the successful and unsuccessful attacks might also be attributed to environmental changes, such as suicide attacks originating from the Gaza Strip or other Palestinian territories, but a barrier or wall was built beginning in 2002 at the height of the second intifada, when major rioting and civil unrest took place from 2000 to 2006 (Butterworth et al., 2012; Zonszein, 2014). Zonszein (2014) reported that Prime Minister Ariel Sharon ordered it as a measure to protect Israelis from Palestinian suicide bombers. Thus, future research could focus on factors that may have affected the behavior of terrorists in the intervening years that may explain the differences found in the successful versus unsuccessful cases.

A fifth limitation was related to the assumption that the adversary was targeting only civilians and not the property. As such, the results only focused on the casualties and did not discuss damages to property. Hence, future research could focus on the aftermath of terror attacks to gain a better understanding of how to prepare against serious damages.

#### Recommendations

Seven recommendations for future research arise based on the strengths and limitations of the study as well as the literature review. First, in this study, I focused on six suicide bombing cases in Israel; thus, filling in a gap in the literature by exploring specific patterns that consistently emerged within each of Freeman et al.'s (2010) nine preattack phases. However, the scope of this study is limited to suicide bombing attacks in Israel. Thus, in future studies, researchers could expand the cases by exploring other suicide bombing cases in other countries while using Freeman et al. nine preattack phases. Findings could be compared to those found in this study and the results could be used to assist counterterrorism and COIN professionals in their efforts to prevent suicide attacks from taking place and better mitigate the effects of suicide attacks.

Second, in this study, I explored the specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each of the suicide bombing cases; however, I did not specially focus on the timing of these specific patterns, such as the months or years between the different phases before the attacks or attempted attacks occurred. Freeman et al. investigated whether terrorist attackers follow an observable pattern in their preattack activities, whether the patterns could be used as an indicator or warning of imminent terrorist activity, and whether the indicators and warnings could be used to predict the timing of a future terrorist attack. Based on the findings from the Freeman et al. study, they found that the nine phases fell into three stages and these stages took place at a specific time.

Specifically, the researchers found that Stage 1 consisted of the first three phases and took place a year or more in advance of the attack. Stage 2 included the fourth and fifth phases and took place 6 months to a year in advance of an attack. Stage 3 consisted of Phases 6 through 9 and took place a few months before the attack. Thus, future research on suicide attacks could also add to the literature by focusing on the specific timing of when each phase takes place before an attack and results could be compared to Freeman et al.'s findings; thus, adding more knowledge in this area. Freeman et al. reported that understanding the general pattern of preparation before a terrorist attack is helpful, but it is most valuable if it could be used as an indicator of an upcoming attack. Thus, counterterrorism and COIN professionals could use the results to predict the specific timeframe when the actual suicide attack may occur.

Third, the suicide bombing cases in this study focused on terrorists who were part of a terrorist organization and had support from other people. Zeirhoffer (2014) presented the difficulty of tracking lone wolf attackers who operate without any supporting organization. The researcher noted the lack of research on lone attackers because most researchers focus only on terrorist organizations. Shaked (2016) reported that the recent terrorist attacks in Israel have been mostly carried out by lone wolves who are not affiliated with any terror groups. Thus, future research could focus on using Borum et al. (1999) threat assessment model to examine the demographics or characteristics of potential lone wolf terrorists, behaviors that could indicate the movement of individuals toward achieving a goal, and how the model could be used to prevent lone wolf terrorism.

Fourth, as noted in the limitation of the study section, this study was limited in its focus on civilian casualties and not property damage. Therefore, future research could focus on the aftermath of terror attacks to gain a better understanding of how to prepare against serious damages.

Fifth, Shalev et al. (2006) evaluated the effects of continuous terror by examining the prevalence of PTSD, PTSD symptoms, and symptoms of general distress in individuals who lived in two different suburbs in Jerusalem, Israel, a directly exposed community and an indirectly exposed community. The researchers found that disruption of daily living significantly contributed to PTSD symptoms. Future research could further delve into the effects on people after suicide attacks, which might further help emergency management groups or first responders, health care providers, and law enforcement officers in their response and treatment of suicide attack victims.

Sixth, Greenhill and Staniland (2007) recommended that individuals conducting counterterrorist activities should consider an underlying premise, namely the in-depth study of the nature and results yielded by COIN operations as such detailed research is indispensable for possibly preventing future incidents involving suicide terrorism. Thus, future research could add to this effort by focusing on how to decrease heightened extremist ideals and prevent future terrorist attacks. Seventh, as noted in the limitations of the study section, the successful attacks occurred in 2001 and 2002, whereas the unsuccessful attacks occurred in 2005 and 2006. Future research could focus on factors

that may have affected the behavior of terrorists in the intervening years that may explain the differences found in the successful versus unsuccessful cases.

### **Implications**

Israel is one of 13 countries at risk for increased terrorist activity (IEP, 2014). The biggest threat to peace in Israel and other countries is terrorist groups such as ISIS, Boko Haram, Hezbollah, Taliban, and al-Qa'ida (Fox, 2014; IEP, 2014). Tal (2002) reported that suicide attacks result in casualties, fear, and anxiety for the public and present difficult challenges to State of Israel officials (Tal, 2002). Fox (2014) emphasized that the detection of terrorist attacks before they occur is critical, but difficult when efforts are unfocused and misaligned. Fox related that law enforcement officials should increase their knowledge about adversary planning so that they can predict suicide attackers' moves to some extent and prevent the attacks by adopting necessary security measures. Similarly, Paul and Landree (2008) argued that it is imperative to study the planning process involved in an attack because it will provide insights into various segments of the attack such as selecting a target, selecting the mode of attack, choosing specific terrorist operatives, and developing an operational plan. Weinstein et al. (2009) emphasized the urgency for developing tools and techniques for detecting and tracking terrorist organizations and networks and recognizing their potentials for terror attacks. Freeman et al. (2010) postulated that focusing on the early phases of adversary preattack planning could provide valuable information about how terrorists prepare to execute an attack.

The patterns that evolved through content analysis have important implications for law enforcement, military, counterterrorism, and COIN officials as understanding the general pattern of preparation before a terrorist attack is useful in preventing future suicide attacks (Freeman et al., 2010; Tal, 2002). Thus, the findings from this study may assist CTOs to further focus on patterns that are helpful in detecting suicide attacks prior to execution. In addition, findings in this study could be used to assist counterterrorism decision makers in creating policies to arrest those suspected of plotting an attack as soon as their activity is noticed. Paul and Landree (2008) noted that the more individuals involved in counterterrorism strategies are able to understand adversary strategies, the better equipped they are to identify risks and execute defensive strategies.

The investigation of the suicide cases with respect to Freeman et al. (2010) nine preattack phases revealed interesting patterns of terrorist behavior that could be used to predict their actions, such as general planning, financing, and operational preparation, which received the most occurrences in the successful attack cases. Paul and Landree (2008) related that when defenders control the attack planning process by protecting essential information concerning the infrastructure or the target, individuals and governments combating terror attacks can gather a more concrete set of parameters regarding what terrorists are likely to search for; hence, they are better able to identify targets that may be at risk and adjust their defenses accordingly.

The implications for positive social change stemming from this study are directed at counterterrorist decision makers and operators, such as Israel Security Agency and

defense establishments, as focusing on the early planning phases of a terrorist attack will help them to better identify essential opportunities to prevent suicide attacks from occurring and better mitigate the effects of suicide attacks. This knowledge and action will save the lives of citizens, first responders, and law enforcement officials. Findings from this research study added further knowledge to the public policy and administration literature on patterns within each of Freeman et al.'s (2010) nine preattack phases prior to suicide attacks. Along with the public policy and administration field, a wide array of other fields might be interested in the study's findings, to include the fields of criminal justice, public safety, and emergency management. The findings from the study are also applicable to many public and private agencies and organizations to include Israel Homeland Security; federal, state, and local law enforcement agencies; and intelligence centers. By better understanding patterns within each of Freeman et al.'s nine preattack phases, counterintelligence and COIN professionals can implement COIN measures that may be able to detect and combat terrorism threats.

#### Conclusion

To help CTOs narrow the field of options while filling the operational need to detect terrorist attacks before they occur, I added new knowledge to the literature by exploring specific patterns within each of Freeman et al.'s (2010) nine preattack phases that consistently emerged in the adversary planning process for each successful or failed suicide bombing cases in Israel. Wigle (2010) explained that compared to other types of terror attacks, suicide attacks are fewer, but results in a higher casualty rate. Kaplan et al.

(2006) noted that suicide bombings were the leading cause of death from terrorism in Israel. Ganor (2015) noted that although terrorists often choose symbolic targets, they target high trafficked areas when the opportunity arises. Ganor argued that terrorists often select their targets based on their assessment of potential attack consequences in terms of loss of life, injuries, economic, and other costs.

Data analysis showed consistent patterns emerging across Freeman et al. (2010) nine phases that revealed how terrorists selected target locations, recruited and provided training to bombers and other members, developed a plan, and prepared for the actual attack. Some of the major patterns that emerged revealed that large terror organizations such as Fatah organization and Hamas supported and funded terrorist attacks, suicide bombers targeted locations that had large number of people at specific times to get a high number of casualties, attackers disguised themselves so that they could avoid being suspected among the target population, and they develop efficient plans for traveling to the site as well as plans for handlers to escape from the target location. Based on these findings, it is important that decision makers and CTOs focus on the early planning phases of a terrorist attack so that they are better able to identify essential opportunities to prevent suicide attacks from occurring (see Fox, 2014). Paul and Landree (2008) related that the more individuals involved in counterterrorism strategies are able to understand adversary strategies, the better equipped they are to identify risks and execute defensive strategies. This in turn will save the lives of Israeli citizens, first responders, and law enforcement officials.

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# Appendix A: Case Study Selection Worksheet

Categories	Selection Criteria Details
Year of attack	
Attack outcome	
City of attack	
Bomber casualty	
Civilian causality	
Target type	
Data sufficiency on each of Freeman et al. (2010) nine phases:	
Networking and indoctrination	
Terrorist training	
General planning	
Recruitment	

Financing	
Operational planning	
Weapons procurement	
Logistical preparation	
Operational preparation	

# Appendix B: Terrorist Activity Data Collection Worksheet

Phases	Descriptive narrative data related to this phase
Phase 1: Networking and indoctrination	
Phase 2: Terrorist training	
Phase 3: General planning	
Phase 4: Recruitment	
Phase 5: Financing	
Phase 6: Operational planning	
Phase 7: Weapons procurement	
Phase 8: Logistical preparation	
Phase 9: Operational preparation	

## Appendix C: Site Data Collection Worksheet

SITE NO.	
COLLECTION QUESTION(S)	NARRATIVE I ADDITIONAL DETAILS
SPATIAL CONSDIERATIONS	
How many blocks can you see along each street? If no streets	Street name/direction: No. of blocks / meters:
visible, use cardinal directions and meter estimates.	Street name/direction: No. of blocks / meters:
	Street name/direction: No. of blocks / meters:
	Street name/direction: No. of blocks / meters:
Were stationary police and or security guards visibly present? (Y/N)	Notes:
Were there routine security patrols? (Y/N)	
Were there personnel restricting access? (Y/N)	

Was a handler present (Y/N)	Notes:
How difficult was it to approach the target on foot? Were there significant obstacles?  Is the site located on a 1-way street?	<ul> <li>1 - direct, no obstacles 2 – some barriers, not direct</li> <li>3 – significant obstructions</li> </ul> Notes:
How close is the site to the West Bank and major thoroughfares?	Proximity to West Bank: Proximity to major thoroughfare:
How can the site be accessed?	By bus (Y/N) By foot (Y/N) By Private car (Y/N)
SITE & IMMEDIATE SURROUNDINGS	
SME opinion: What is the primary reason the target site (or transportation route) was selected?	
What are immediate surroundings of the detonation site? Consider the same block or complex.	Is location in a mall? Street filled with other bus stops? Etc.
Is there anything notable about the key	Core constituency: e.g., university students, businessmen, blue collar workers.

population that frequents the site and its immediate surroundings (or rides the bus)?	
What are the local points of interest (POIs) in the immediate area? For example, religious sites, political figures' residences, business centers?	
Rate and explain the political, religious, commercial or other significance (symbolic or strategic) of the site, immediate surroundings, and local POIs (1-5)	1 – none 2 – possible /low impact 3 – likely 4 – high likelihood 5 – definite / high impact  Political Religious Commercial Other
NEIGHBORHOOD COMPOSITION (SEVERAL BLOCKS 1 2000+ PEOPLE)	
What is the neighborhood called?	
What are the local socioeconomic conditions and class composition of the neighborhood?	1 – working class 2 – middle class 3 – upper class

What is the religious composition of the neighborhood (e.g., Muslim, Jewish, Orthodox)?	Residents: Visitors:
What is the ethnic composition of the neighborhood?	
What is the daily influx of Palestinians into the site and surrounding neighborhood for employment or other purposes (1-5)?	1 – none / 2 – low / 3 – medium / 4 – high / 5 – extremely high  Notes:
TIMING CONSIDERATIONS OF DETONATION	
Daily and weekly schedules of religious observance and preparation for observance in immediate area	
Daily and weekly schedules of leisure patterns, including shopping, dining, etc.	
Daily and weekly schedules of transit as related to school, work, religious observance,	

leisure etc.	
Did bombing co-occur with religious observance or holiday (Muslim or Jewish)? (Y/N)	Is observance related to the site? I.e., major synagogues, shopping areas for Sabbath?
Did bombing co-occur with date of political commemorations or negotiations? (Y/N)	Were they related to the site? Proximity of negotiations, public statements, government buildings?
Did bombing co-occur with significant changes in security situation, or with armed operations in territories? (Y/N)	Include IDF activities, political infighting in territories.  Did these take place close to the site?

Appendix D: Questionnaire Into Suicide Bombing Events

Target Code	Site Specific	Target site selection	Neighborhood	Regional
Why was the target site selected (see next section of questions on site selection)?	What is special about the site?	Was it a group decision or individual decision on the site selection? What was the process of making the decision?	What is special about the neighborhood? Business, residential, tourist?	Is there any significance to the order or simply to appear it could happen anywhere at any time?
What planning (preparation and staging) went into the attack?	Was the site or bus known for tourists or locals? Workers or students? Soldiers?	What were the considerations of site selection? Were there any regional factors or social/political factors involved in the decision?	What do they think was the neighborhood social composition? Primarily Israelis or other ethnicity? Did it border similar areas?	Was there a trigger event to the first bombing? Where any bombings in response to actions by security officials?
What triggered the attack to take place? Was there a political or social trigger? Was timing significant?	What time was the event to as much detail as possible?	How far did one travel to the site at the day of the event, and did the person choose a particular route to get to the site?	Is there any info on the bomber's residence? Where multiple bombers from the same area, same school, same church?	How were bombers recruited? Did most volunteer?
In what ways can the target site be characterized	How did the bomber arrive at the site (e.g., walk	Did one scout the site prior to the event? If so, how far ago	Did any bombers live and bomb in the same area?	Were the devices assembled in Israel?

(e.g., many people/gatherin g site, political area, financial area, religious, monuments, etc.)?	from a local apartment, take the bus, from a taxi)?	before the event? How many times? What did the person look for at the site? Did one look for different things each time when one scouted the site? What was the site scouting strategy? Were there any sites dropped after scouting and considerations? If so, what were these sites and what were the reasons or rationale?		
It what ways did the attack fit a pattern? Location of attack? How attack was carried out? Characteristics of bomb?	Get a description of the site if it was not a bus. Was it a bus stop, inside a building, a common area between shops or cafés, at a checkpoint (checkpoint was around what)?	How did the person decide a particular spot at the site to trigger the event?	Any info to suggest bombers scouted multiple sites?	What was happening prior to the suicide bombings? Other types for organized violence?
What has been done to mitigate risk of attacks? Where are they	If it was a bus, did the bomber get on the bus and	How important is choosing the time of triggering the	Any info to suggest the bomber was familiar with	At the time, how was terror organization

adding protection measures? Where do they expect future attacks and why?	detonate quickly or ride the bus for an amount of time. Do they think the intention was the bus or the location of the bus or both?	event? How is the time factor considered? How was the site selection influenced by recent news or political situations?	the area?	organized? Once central group or a few dispersed cells/cliques?
We would like to better understand any specific tactics (e.g., attacking public transportation)? What has been learned? What has been done to protect? What is expected in the future?	Anything special about the site related to time of year? Holiday shoppers, sports events, local festivals	How did one travel to the site? Did one detour en route to the site? If so, where did the person stop? How far was the site from one's origin location (i.e., where did the person start the journey to the site on the day of the event?)?		
	If the event was on a bus, what are the details of the bus line? To and from what areas and what is special about the areas. The bus was taking people to work, shopping,	What did the person see on the way to the site?		

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tourist areas?		
Any info on where the bomber was outfitted with the device?		
Was site chosen for a specific reason? Did the site symbolize something?		
Cultural insight relating to bus attacks:		
Is there a demographic divide in who typically rides particular bus routes?		
Was there anything unique about the suicide bombings that occurred on buses, aside from the assumed desire to maximize casualties (i.e., certain bus-routes,		

time of day, passengers, choice of targeting a moving bus in terms of a tactic)		
What measures were taken by the transit authorities or companies to counter bombers targeting buses? Were they effective?		

### Appendix E: NIH Certificate

## **Certificate of Completion**

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Aaron Richman** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 11/30/2015

Certification Number: 1927958