8-5-2015

Women Motorcycle Passengers: The View from the Backseat

Ginger Lou Bucher
Indiana University of Pennsylvania

WOMEN MOTORCYCLE PASSENGERS:

THE VIEW FROM THE BACKSEAT

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

Ginger L. Bucher

Indiana University of Pennsylvania

August 2015

Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Sociology

We hereby approve the dissertation of

Ginger Lou Bucher

Candidate for the degree of Doctor of Philosophy

_____ _____
Mary Jane Kuffner Hirt
Professor of Political Science, Advisor

_____ _____
David Chambers, Ph.D.
Professor of Political Science

_____ _____
Wanda Minnick, Ph.D.
Professor of Safety Sciences

ACCEPTED

_____ _____
Randy L. Martin, Ph.D.
Dean
School of Graduate Studies and Research

Title: Women Motorcycle Passengers

Author: Ginger Lou Bucher

Dissertation Chair: Dr. Mary Jane Kuffner Hirt

Dissertation Committee Members: Dr. David Chambers
Dr. Wanda Minnick

The present research explores the phenomena of women who ride as motorcycle passengers. The perspectives and experiences of women motorcycle passengers are documented through a two-staged qualitative research design supported by quantitative frequencies. The purpose of this research is to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. A total of thirty-one participants and 107 survey respondents took part during the seven-month data collection period. The respondents provide narratives that describe experiences and perspectives while survey responses produce frequencies for use in developing hypotheses.

Keywords: women, motorcycle, motorcycle passengers, pillion, motorcycle riders, motorcyclists, two-up, motorcycle safety, traffic safety policy, influence

ACKNOWLEDGEMENTS

My husband, Ted has been with me every step of the way. Ted believed in what I was doing and in support of my work he shouldered the mundane tasks of daily living. Our passion for riding motorcycles remains strong despite the sacrificed rides because of this project. Our time together was limited while I spent long stretches of time in libraries, coffee shops, and sequestered with my computer in a quiet spot in our home. Ted introduced me to motorcycling in the mid-1980s. The accomplishment is Ted's as much as it is mine.

My granddaughter, Haley assisted me with the field events by scouting out opportunities and helping me to recruit participants. We gave up time together so that I continued making progress. Like Ted, she inspires me to persist in the face of adversity remain confident even when the obstacles seem too great to overcome. I hope that I have provided her something to think about as she makes decisions concerning her future.

My doctoral studies began with the encouragement of Dr. Betsy Crane and her advice to produce a "done" dissertation. My colleagues from Cohort 7 kept me moving forward as they reported their progress at our monthly luncheons. Darlene, Erin, Kelly, and Bob, thank you. You helped anchor me when I was adrift. Your encouragement made a difference to me.

Patrick Hahn and Liz Janzen provided expert review and valuable suggestions. Along with others, you distributed information to motorcycling network. Your enthusiasm for motorcycling is infectious and inspiring.

Connie, Evelyn, Marla, and Lynne, you became my champions. Connie was there from the start and never stopped supporting my efforts. Evelyn insisted that I finish, no matter what. Marla and Lynne entered the picture later on in my journey; the timing was impeccable.

I owe a special thanks to my family and in-laws. You excused my absences from the dinner table at holidays and sent much-appreciated food home with Ted and Haley. And to answer your question: Aren't you done yet? I say to you, I am. I finally am. Thanks for sticking around.

Lastly, to my committee, thank you for your enduring patience. Dr. Kuffner-Hirt led me through some difficult times and gave me feedback to keep me moving along. I appreciate the insights and perspectives of Dr. David Chambers and Dr. Wanda Minnick. The three of you taught me keep my eyes on the end goal. I owe a debt of gratitude to Dr. John Anderson, who made things happen when I lost my way.

TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Women have been riding motorcycles since the early 1900's when the two-wheeled inventions became available to the public. Over 100 years later, women riders and passengers represent a sizeable component of the motorcycling population. As reported by *Women Riders Now* (2014) the "Motorcycle Industry Council's Dealership Survey: 2012" estimates that women represent one-in-three of the 27 million active motorcyclists in the United States. Like other roadway users, motorcyclists rely upon a vast transportation network that is governed by public policy at the local, state, and federal levels. As a means to inform public policy development, this dissertation explores the characteristics and experiences of women who ride motorcycles as passengers.

Background

Women motorcycle passengers represent a phenomenon that has not been described nor analyzed as part of the larger community of motorcyclists. Physically dependent upon the motorcycle rider, passengers face many of the same risks that riders do, yet possess less control over the risks of riding. To illustrate, during the ride, the rider takes action and makes decisions that control the motorcycle; the passenger appears to play passive and supportive roles. As such, women passengers appear as companions to motorcycling rather than participants in their own right.

Public policy reveals little about the role of women motorcycle passengers in preserving human lives and minimizing the risks of injuries. The federal government through the auspices of the US Department of Transportation (USDOT) and the National Highway Transportation Administration (NHTSA) collect and analyze data associated with all vehicular deaths and

injuries for use in public policy development. Like all motorcyclists, women passengers and riders risk injuries. The National Center for Statistical Analysis (NCSA) (2014b) reports that in 2012, the deaths of 4,957 motorcyclists accounted for fifteen percent of all traffic fatalities. At the same time, the numbers of motorcycle passenger fatalities totaled 332 (NHTSA, 2012, Table 68, p. 118) or seven percent of all motorcycle fatalities including both riders and passengers. Based upon a ten-year average from 1996 to 2007, women motorcycle passengers account for ninety percent of women motorcycle injuries (NCSA, 2009). Of the total 332 passenger fatalities, 290 women died while riding as passengers. In contrast, 166 women were fatally injured while operating motorcycles (NHTSA, 2012). Of the 93,000 of motorcyclists who were injured in 2012, passengers accounted for 6,000 injuries of which 1,000 injuries were incapacitating (NCSA, 2014b). The numbers of passenger fatalities and injuries may seem small relative to the total motorcyclists who were killed and injured during 2012; however, by comparison, the estimated number of women who ride motorcycles is sizeable at 6.75 million (WRN, 2012). The numbers of active women motorcyclists, i.e. passengers and riders, suggests that women possess the potential to influence motorcycle safety while riding and within the context of public policy development. See Appendix F, Table 16 for a compilation of statistics from diverse sources regarding motorcycling data from 1997 through 2012.

At the federal level, public policy may influence states; however, states establish legislation associated with driver licensing and vehicle registration. In many states, few laws apply directly to motorcycle passengers other than requirements for protective gear such approved motorcycle helmets and eye protection. Indirectly, passengers are subject to the constraints that limit riders. For instance, to carry passengers, riders may be required to complete motorcycle safety courses, obtain a minimum periods of riding experience, and may be

prohibited from carrying passengers when riding with only a motorcycle permit. Mainly, provisions in state laws regarding passengers are written for riders' actions and are encouraged to be consistent with federal standards for training.

Public information and educational materials that are disseminated by governmental agencies tend to assign the responsibilities of passenger safety to the rider for control of the motorcycle and to the passenger for wearing a helmet. As an example, regarding motorcycle passengers, NHTSA provides an educational pamphlet, entitled "Motorcycle Safety" that cautions motorcycle operators: "Be aware that riding with a passenger requires even more skill than riding alone. Riding with a passenger should be delayed until you have considerable solo riding time and are ready to take on the responsibility of carrying a passenger" (NHTSA, 1999, p. 6).

In addition to educating motorcyclists about passengers through public information, the federal government developed guidance for rider training. *The Model National Standards For Entry-Level Motorcycle Rider Training* (Model Standards) addresses passengers in this way:

> The rider understands the *adjustments necessary for carrying passengers and cargo*. The rider understands considerations for long-distance riding and touring. The rider understands that *beginners should limit exposure to group riding, carrying passengers*, and riding long distances until the rider has gained skill and experience. (NHTSA, 2011, p. 2, emphasis added)

In support of the Model Standards NHTSA proscribes that the rider knows the maximum weight capacity of a motorcycle, the benefits of adjusting tire pressure and suspension for added weight, proper passenger mounting, riding, and dismounting, and factors that contribute to distraction and/or inattention (e.g., communication devices, *passengers*, etc.), the effects of additional

weight on balance, braking, and steering and how to position, secure, and protect cargo (Windwalker Corporation & Highway Safety Services, 2011, p. 15). In my view, from the rider's perspective, the passenger is another thing to be managed not unlike a piece of luggage or other cargo.

As demonstrated in the Model Standards, operating a motorcycle as a rider differs from riding as a passenger. The term "motorcyclist", which refers to both the passenger and the rider, implies that passengers and riders share an identity. The Model Standards, which are focused on rider training, do not address the interdependence of rider and passenger. Nonetheless, social interactions between passenger and rider are recognized in rider training materials. For instance, the industry-founded non-profit, the Motorcycle Safety Foundation (MSF) provides instructions for carrying passengers (MSF, 2014, p. 37). An MSF pamphlet provides clarification on passengers' contributions to the ride: "Passengers should be considered as a second 'active' rider so they can help ensure that safety and procedural operations are correctly followed" (MSF, 2012, p. 1). MSF's tips for passengers suggest a belief in the ability of the passenger to influence both the rider and the riding experience. Riders are cautioned about risky passenger behaviors such as distractions and impairment. The tips advise the rider to ensure that the passenger is outfitted with protective gear. While passengers may seem to play a minor role in motorcycling, there is some evidence that suggests that passengers influence critical decisions such as helmet use and speed choice. In some studies, passengers appear to be a negative influence upon helmet usage; using projections, NHTSA predicts that when a passenger is aboard, 58% of total motorcycle operators wore helmets. If the *passenger* was un-helmeted, only 5% of operators used a helmet. If the *rider* was un-helmeted, 12% of passengers wore helmets (NHTSA, 2009).

In the case of passengers, it is unclear if passengers influence rider speed choice, alcohol and drug consumption, and helmet use. Equally unclear is the influence of the passenger's risk-taking propensity, confidence, optimism, or self-image. In relation to speed choice, Joans (2001) describes how mixed groups of men and women riders will travel at lower speeds during a group ride. Studies such as the *Evaluation of the Pennsylvania Motorcycle Safety Program* (Vance, Renz, & Hoskins, 2009) suggest that rider speed choice is a byproduct of gender, age, or experience. Traffic safety studies regarding passenger vehicles may yield some insights; however, the recreational and risk characteristics of motorcycling may influence speed in a different way. For example, speeding during recreational riding such as long-distance touring may carry different risks on open highways than commuting through heavily congested traffic.

Theoretical Orientation

The theoretical orientation for this research is symbolic interactionism. Interpretations of the phenomena of women motorcyclists occur at the microsociology level. This research is underpinned by an ontology or belief that reality is socially constructed (Morgan and Smircich, 1990). Symbolic interactionism is apropos to investigating the relationships between motorcycle riders and passengers as well as interactions with the motorcycling community Relative to the situations arising through motorcycling, symbolic interaction offers a expansive framework suited to an initial inquiry of the phenomenon. As social theorist, Herbert Blumer (1998) suggests: situations dictate actions, i.e., people construct individual and collective action as a result of interpreting a situation. From a motorcycle safety perspective, the influence of others including women motorcyclists may have a bearing on situations that stem from risk-taking and the undertaking of actions such as safety practices.

Several secondary theories are considered as well. Considering that symbolic interactionism positions the present research to examine interactions within the context of motorcycling, additional theories provide a granular perspective for the dynamics of relationships and the peculiarities of risk that characterizes motorcycling. These secondary theories include social exchange theory, interdependency theory, voluntary risk theory and reversal theory. Social exchange theory is relevant for understanding how passengers interact with riders. As Blau (1964, p. 108) stated, "Only social exchange tends to engender feelings of personal obligation, gratitude and trust... ". Since trust can be seen as the key risk factor for a passenger, social exchange theory may provide insights that contribute to explaining why passengers may not feel at risk. Interdependency theory, as described by Rusbult and Lange (2003) provides a framework for examining structures, processes, and adaptation within the context of relationships and social situations. The concept denoting a "level of dependence" between partners offers a conceptual view for examining control aspects of passenger and rider relationships (Rusbult and Lange, 2003, p. 355). Relative to voluntary risk-taking Lupton and Tulloch (2002) describe coping strategies such as downplaying risk or relying on others when the risk-taker has little control over the amount of risk. In an application of reversal theory Apter (2007, p. 42) describes a "protective frame" between "excitement-seeking" and "anxiety-avoidance" states.. Each of the secondary theories offers in depth perspectives for exploring underlying contributory factors for motorcycle passengers' safety.

As a first step, the present research employs a symbolic interaction framework to investigate experiences of women motorcycle passengers as they relate to relationships and safety measures while riding. Concepts from social exchange theory, interdependence theory, voluntary risk theory and reversal theory provide associated perspectives on this topic.

Purpose of the Study

At issue, do women who ride as motorcycle passengers play a role in motorcycle safety? The purpose of this research is to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. At the time of this research official data is limited to the extent to which women motorcycle passengers are injured and the instances when motorcyclists violate state motor vehicle laws.

Motorcyclists and non-motorcyclists share an interest in mitigating the risks associated with motorcycle riding. Examples of beneficiaries of this research include but are not limited to the United States Department of Transportation, state and local governments, private and public motorcyclist trainers and safety course developers, the insurance industry, motorcycle manufacturers, companies that produce motorcycling-related accessories and protective devices, medical researchers, and public health officials. Each of these entities shares interests to improve safety, minimize risk, and reduce crashes. Addressing these issues depends on the availability of data and the analysis thereof.

Terms and Concepts

Bike. A motorcycle.

Biker. A motorcyclist.

Biker Chick. "Most frequently on her own in a culture that takes advantage of women on their own" (Joans, 2001)

Co-rider. 1) Shares responsibility with the rider in operating the motorcycle safely (Gold Wing Road Riders Association, 2014), 2) "Passengers should be considered as a second "active" rider so they can help ensure that safety and procedural operations are correctly followed." (Motorcycle Safety Foundation, 2014)

Helmet. Specially designed head protection for motorcyclists; United States Department of Transportation or DOT sets federal safety standards (DOT FMVSS 218) which are designated with a DOT sticker on the back of the helmet; may include novelty (noncompliant) helmets which do not meet DOT standards. (Office of Behavioral Safety Research, 2007)

Motorcycle. 1) A two- or three-wheeled motor vehicle designed to transport one or two people, including motorscooters, minibikes, and mopeds (National Highway Traffic Safety Administration, 2012, p. 224); 2) a motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, or designed to travel on two wheels in contact with the ground, which is modified by the addition of two stabilizing wheels on the rear of the motor vehicle (Pennsylvania Department of Transportation, 2010). See also **motorcycle vehicle types**.

Motorcycle passenger. Also referred to by researchers as pillion, "women who ride on back", two-up or two-uppers (Auster, 2001; Gagné & Austin, 2010; Tunnicliff, Watson, White, Lewis, & Wishart, 2010).

Motorcycle rider. The operator (driver) of a motorcycle. (NHTSA, 2012, p. 224)

Motorcycle vehicle types. The following vehicles are defined as motorcycles: mopeds, two- or three-wheeled motorcycles, off-road motorcycles, scooters, mini bikes, and pocket bikes (National Center for Statistical Analysis, 2014, p. 1). See also Motorcycle.

Motorcyclist. Any person riding on a motorcycle, including the motorcycle rider (operator) and any passenger (a person riding on, but not in control of, the motorcycle) (NHTSA, 2012, p. 224)

Motorscooters or "scooters". A street motorcycle that is characterized by "a step-through design, often with under-seat storage, usually has smaller wheels, most have automatic transmissions" (MSF, 2014 p. 2).

Two-uppers. Describes a pair of motorcyclists consisting of the motorcycle rider and passenger (slang)

Passengering. A term used by Joans (2001), which refers to riding astride behind the rider of a motorcycle.

Pillion. A passenger on a motorcycle, or in a sidecar. A pillion passenger should be either positioned directly behind the rider, facing forward on a registered seat for a pillion passenger, or in a sidecar (Watson, et al., 2007).

Protective clothing. Clothing, designed for motorcycle use, which reduces the severity of injuries sustained in the event of a motorcycle crash. Examples include a motorcycle helmet, gloves, boots, jackets and trousers designed for motorcycle riding. Although denim jeans would be more 'protective' than shorts, jeans would not be classed as 'protective clothing' (Watson, et al., 2007).

Protective gear. Jackets, pants, boots and gloves—ranges in type, and level, of protection (National Highway Traffic Safety Administration, 2014, p. 4).

Ride pillion. Travel seated behind a motorcycle; the term pillion refers to the seat behind the motorcyclist (Oxford Dictionaries, 2015).

Chapter 1 Summary

The purpose of this research is to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. In this chapter, I suggested that women who ride as passengers deserve more attention. As the population of passengers is not defined,

policy-makers, and others in the industry rely on assumptions about women motorcycle passengers. Documenting the number and characteristics of motorcycle passengers proves to be a challenge. In contrast to motorcycle riders who can be tracked through official licensing records, vehicle registrations, and law enforcement records, official data regarding motorcycle passenger information is limited to traffic safety reports and receive little official recognition as active participants in motorcycling.

CHAPTER 2

LITERATURE REVIEW

This chapter describes the review of literature relative to the study of women motorcycle passengers. The review begins with an investigation of the extant literature that includes a discussion of motorcycle passengers. Several criteria guided the selection of relevant literature including literature that is motorcycling-related, women-oriented, relationship-based, and safety-focused. Theories from multiple disciplines were considered including but not limited to sociology, psychology, leisure science, consumer studies, marketing, transportation, safety science, and traffic safety. I used the following search engines to locate academic and professional sources: EBSCOHost, Gale, Jstor, ProQuest, Springer Verlag, Sage, and Google Scholar. Keywords include motorcycle passengers, women motorcyclists, pillion, gender, motorcycle safety, traffic safety, subculture, deviant behavior, motorcyclists, motorcycle, and helmet. Date ranges for motorcycle passengers are 1970 through May 2012. Date ranges for motorcycle safety sources date ranges are 1960 through August 2014. The earlier literature for motorcycle safety is necessary because the origin of governmental approaches to motorcycle safety can be traced to the 1970s and 1980s. For motorcycle passengers, I start with the literature of the previous decade because passengers, because to the best of my knowledge, passengers are seldom mentioned in motorcycle safety research prior to the 1990s.

While scholarly and professional literature has focused primarily on the motorcycle rider, motorcycle passengers are described in relation to crashes, uses of protective gear, relationships with men, and transitions to motorcycle riders. As detailed further in this chapter, a handful of recent research studies reveal references to motorcycle passengers; of these very few devote attention to the experiences of women motorcycle passengers.

Relevant Literature

To focus on the primary subject of this research, I reviewed fourteen studies about motorcyclists, five of which refer directly to women passengers. After an exhaustive search I found only a few studies that included motorcycle passengers. Further details regarding the five studies that refer directly to motorcycle passengers is located in Appendix G, Table 17. The fourteen studies represent data collection periods that range from "snap shots" of motorcyclists gathered at a single point in time to a time span of fifteen years. Of the fourteen studies, nine are qualitative in nature, three use a mixed methods approach, and two studies use quantitative designs. Of the qualitative designs, six include ethnographic approaches exclusively or in tandem with interviews, focus groups, and photography. The three mixed methods designs feature qualitative approaches such as participant observer, interviews, focus groups, and combinations of the three. The quantitative approaches within the mixed methods designs include demographic data collection, surveys that rely on close-ended questions, and questionnaires that include both close-ended and open-ended questions. The sole quantitative-only design consists of closed-ended or fill-in-the-blank questions along with one open-ended question. The number of participants ranges from one researcher as participant observer to 453 survey respondents. The research described in Chapter 2 provides a starting point for considering the experiences that women passengers share with women motorcycle riders.

Themes in the Literature

Primary themes in the literature include relationships, male influences, gender, social experiences, risk-taking, safety responses, and leisure consumption. Identification of the primary themes in the literature serves as the first step toward address the purpose of this research, which is the lack of basic information about women motorcycle passengers. In the literature,

researchers describe women motorcycle passengers in relationship to riders. Joans (2001) observes that a woman passenger is defined in large part through the actions and behavior of the motorcycle rider. Thompson (2012, p. 62) refers to women motorcycle passengers as special people who are not likely to be men because riding on back requires a tremendous amount of trust, devotion, courage and submission. Writing from the perspective of the Harley motorcycle subculture Joans (2001, p. 93) describes the biker chick as most frequently on her own in a culture that takes advantage of women on their own. As compared to the other studies in this literature review, women passengers receive the most attention in Joans' study. Joans (2001) describes the non-riding woman as the lady passenger who is

> ...the fair-weather, Sunday passenger who accepts the bike as a permanent fixture in her man's life but does not share his passion. She will ride with him, but it has to be a special occasion. Like wives, ole ladies, and girlfriends everywhere, she dresses and acts to please when it suits her. (Joans, 2001, p. 90)

Joans (2001) found that most Harley passengers tend to be lady passengers. The passionate passenger may have entered motorcycling because of a male relationship but she stays because of her love for riding motorcyclists. As stated by Joans (2001, pp. 90-91), she (passionate passenger) must continually please her man to keep herself riding, but as a heterosexual woman, she is used to doing this anyway (Joans, pp. 90 – 91). The passionate passenger is also the most likely to want to ride a motorcycle herself.

Considering that passengers are dependent on riders' behaviors means that passengers are assuming risks as well. Several perspectives are congruent with the risks that motorcyclists face irrespective of being a passenger or a rider. Thompson (2012, p.62) observes that passengers and riders alike face weather, road hazards, and the physical challenges of riding except that

passengers possess less control over the ride. As a consequence, trust in the individual rider becomes a primary consideration for the passenger. Thompson (2012) suggests that this finding lends support to the validity of studying women motorcycle passengers based upon a social exchange framework. Because passengers are dependent upon riders for the quality of the ride and for keeping them out of harm's way, the dynamic between rider and passengers differs from the rider's perspective and experiences.

Perceptions about and motivations of women passengers and riders may overlap. Viewed from a framework of symbolic interactionism, Thompson (2012) provides evidence that women perceive motorcycling as a form of personal rebellion. Thompson (2009, pp. 104 – 106) attributes pseudo-deviance to women in the new biker culture where wives accompanied men as passengers or riders and are able to reconcile feminist social views with the extremely masculine biker culture. As a comparison, he suggests that two uppers or passengers as being deviant while riders are considered double deviant. Joans (2001) found similarities between women passengers and women riders in that they convey rebellion and independence.

For many women the first experiences with motorcycling begins as passengers. Depending upon the success of the first experiences, women may develop a passion for motorcycling. For some women, it can be a pivotal experience in shaping the decision to become a motorcycle operator or to continue on as a passenger (Auster, 2001; Glasmer, 2003; Joans, 2000; Martin, et al., 2006; Thompson, 2012). Experience as passengers may encourage women to learn to ride at some later point in their lives. For example, Roster (2007) identifies the role of life transitions such as divorce and the need to reclaim identity as motivation for some women to become riders after experiencing passengering in a prior relationship. Depending upon the

dynamic between the rider and a would-be motorcyclist, the rider's perspective may skew a woman's choice to ride or be a passenger.

Men appear to be especially influential in the introductory stages of motorcycling when women become passengers for the first time. Men continue to exert influence in encouraging riding, framing the experience and controlling the role of women in the motorcycling subculture. Characterized as "riding around with boys", Martin, et al., (2006, p. 180) refers to the passenger stage as the entry point to male culture that is commonly experienced by teens and by women who were attracted to the physical closeness but may or may not have been inured to become a rider. Roster (2007) describes women's entry into motorcycling subculture as dependent on a social-sexual relationship with a man who was already part of the subculture; male motorcyclists act as the facilitators who encourage and make it possible for women to ride. Similarly, Gagné and Austin (2010, pp. 4 - 5) found that men exercise patriarchal control by prohibiting women from riding and attempting to control their experience and expectations. Several researchers agree that men are dominant in introducing women to motorcycling and serve as mentors, while ongoing obstacles are overcome with support by significant others (Auster, 2001; Glasmer, 2003; Thompson, 2012).

Interpretations of gender roles influence women's involvement in motorcycling. Olstead (2011, p. 91) found further evidence that others believed that women, who are considered to be perpetually in a state of risk, require protection and reminders from others. Roster (2007) also found that while women became empowered through motorcycling, they experience a fear of dangerous activity and leaving children behind. In a similar way, the lady passenger drifts away from her enthusiasm for motorcycling as home and family compete for her attention (Joans, 2001, p. 90). Joans differentiates women passengers as being dependent on their sexuality as a

condition of participation while women riders are gender traitors because they are doing something unexpected for women. Previously, Schouten and McAlexander (1995, p. 55) found that: Women are treated as motorcycle accessories, that is, adornments who ride on the back of the bike. In reference to the biker movies of the 1960s, Perlman (2007, p. 11) observes, Although women often appear in the films as girlfriends or 'mamas,' female characters in biker movies are fairly incidental. Joans (2001, p. 93) asserts that the biker chick represents the ultra-feminine in that she portrays the most extreme female social role. Roster (2007) found that male influence over the experience of riding and the expectations for women by virtue of gender influences the identity construction of women motorcyclists. Thompson (2012, p. 69) found that while the general public considers all motorcyclists as deviant, by virtue of gender, women seem more deviant than men who ride motorcycles. Women who operate motorcycles are seen as double deviants. Based upon the findings of Joans (2001) and Thompson (2012) the perception persists that passengers represent feminine passivity. As presented in the literature, several researchers describe women motorcyclists, and by extension, women motorcycle passengers, as objects in a gender-influenced subculture.

While women passengers may seem to play a passive role in motorcycling, there is some evidence that passengers influence critical decisions such as helmet use and speed choice. In some studies, passengers appear to be a negative influence upon helmet usage. For example, using probabilities, NHTSA projected that when a passenger is aboard, 58% of total motorcycle operators wear helmets. If the *passenger* is un-helmeted, only 5% of operators use a helmet. If the *rider* is un-helmeted, 12% of passengers wear helmets (NHTSA, 2009, emphasis added). In relation to speed choice, Joans (2001) describes how mixed groups of men and women operators travel at lower speeds during a group ride. Studies such as the *Evaluation of the Pennsylvania*

Motorcycle Safety Program (Vance, Renz, & Hoskins, 2009) suggest that rider speed choice is a byproduct of gender, age, or experience. Haworth, et .al. (1997) suggest that passengers create a higher center of gravity that negatively influences safety. The Motorcycle Accident in Depth Study (MAIDS) reported that, of 79 crashes the passenger contributed to the accident in nine percent of the cases in addition to nine percent where the passenger's role in the accident was unknown (ACEM, 2008, p. 120). They also found that 21% of the passengers did not wear a helmet more likely to not wear a helmet, and, in general, are less likely to wear protective clothing than riders (ACEM, 2008, p. 129).

Group norms are thought to play a role in motorcycle safety. For instance, within the social context of motorcycling, Tunnicliff, et al. (2011) found that group identity and group norms have an important influence on rider behavior and may be associated with membership in a club or a specific brand or style of riding. Previously, Watson, et al. (2007, p. 61) found that pillion passengers alter rider behavior. While passengers are generally a positive influence, on occasion riders admitted taking risks because they had a pillion on the back. Tunnicliff, et al., 2011) and Watson, et al. (2007) suggest that stories and the experiences of others influence how riders think about safety. Associating the experiences of others with one's own safety has been studied in relation to motorcyclists' behaviors. One study found that individuals who had been associated with someone who had been killed on a motorcycle actually abandoned preventative safety measures rather than becoming safer (Rutter, Quine, & Albery, 1998). From a large study of motorcyclists in the United Kingdom, Elliot, Baughan, & Sexton (2007) suggest that the influence of close associates' motorcycling experiences requires further study. The influence of others appears to be a compelling factor in rider decision-making. Based on the understanding that rider behavior determines their safety, Tunnicliff, et al. (2011) explored the social context of

motorcycling in order to identify influences on riders' behaviors. To do so, Tunnicliff, et al., applied the decision-making model, theory of planned behavior (TPB). TPB is used to predict behaviors based on attitudes, subjective norms, and perceived behavioral control (Azjen, 1991, Doll & Azjen, 1992). Because the subjective norms have been shown to be a weak predictor for traffic behaviors, Tunnicliff, et al. (2011) were interested in the effects of group norms, group identity, moral and personal norms as well as self-identity.

Injury data indicates the consequences of risks from not wearing protective gear such as helmets. Toxicology data provides evidence of the connections between rider-impairment and the incidences and nature of injuries. Public health advocacy groups champion mandatory helmet laws. Notable advocates include the American College of Surgeons, the Centers for Disease Control) and the American Public Health Association (APHA, 1987; Satkoske, Horner, Polack, Kappel, & Mattson, 2013; Community Preventive Services Task Force, 2014. Crash data is valuable for improving emergency medical responses. Murphy, Nyland, Lantry, and Roberts (2009) examined injury patterns for twenty-one motorcycle "couples", nineteen of which the riders were male and the passengers were female. They found similarities and differences in the types of injuries that passengers experience as compared to riders.

As noted earlier, society shares a collective interest in shaping the context and responsibility for managing individual risks. Motorcycle safety programs attempt to manage risks through advocacy, training programs, and public information campaigns.

Analysis of the Literature

Because of the scarcity of academic research regarding women motorcycle passengers, I selected studies that refer to motorcycle passengers directly and indirectly. The fourteen motorcyclists' studies that span the time period 1995 through 2012 explore women motorcyclists

by employing ethnography as the primary data collection method. Women motorcycle passengers are not the primary subjects in any of the reviewed studies. However, passengers are included in several studies regarding crash experience and subcultures. For example, Haworth, et al. (1997) analyzed twenty-two motorcycle crashes involving passengers as part of a case control study of motorcycle crashes. Thompson (2012) interviewed motorcycle passengers (n = 24). Joans (2001) relied upon her own experiences and participant observations. The number of passengers included in her study is unknown. The gender studies explore the similarities and differences between women passengers and riders. In contrast, the traffic safety studies explore the behaviors and influences of passengers and riders in reference to risky behaviors. Riders' views of passengers are captured in *The Social Context of Motorcycle Riding and the Key Determinants Influencing Rider Behavior* where researchers explored passenger influences on rider risk taking through eight focus groups consisting of, 41 riders and two police officers (Tunnicliff, et al., 2011). Some studies specifically exclude passengers in studies that include women riders and motorcyclists (Glasmer, 2003; Vance, Renz & Hoskins, 2009). Each of the ethnographies that have a gender focus takes place in the United States. The works of Joans (2001), Gagné and Austin (2010), Martin, et al., (2006) and Thompson (2012) include descriptions of passengers gleaned from observation and interviews. The ethnographies represent disciplines such as cultural anthropology, sociology, leisure sciences, marketing, and consumer behavior.

Relative to the theoretical orientation of the present research, i.e., symbolic interactionism, Austin and Gagné (2008) and Thompson (2012) employed the lens of symbolic interactionism through qualitative methods. Austin and Gagné (2008) investigated the mobile motorcycling community and found shared interpretations for symbolic traditions, displays of

behaviors and appearances that encouraged motorcyclists to live together as a temporary community. Thompson found symbolic interpretations of deviance and status for both women passengers and riders within the motorcycling subculture. Watson, et al., (2007) used mixed methods to examine the applicability of the Azjen's theory of planned behavior to risk-taking. Watson, et al., (2007) used focus groups to identify and confirm issues for the development of a quantitative survey. Austin (2009) used participant observations and fieldwork at motorcycle rally events, interviews of participants, and a survey to explore a subculture centered on a shared style of riding. Gagné, et al. (2010) collected data as opportunistic participant observers, conducted interviews, and administered a questionnaire. Spanning a period of nine years of data collection, the latter two examples show a greater emphasis upon ethnographic details and the criticality of contextual description (Austin, 2009 and Gagné, et al., 2010). Survey results helped affirm the details of the more informal qualitative inquiry of the mobile motorcycling community. Consistent with their findings that the presence of passengers affects the behaviors of riders, Watson, et al. and Tunnicliff, et al. suggest that a framework derived from decision-making models like the theory of planned behavior and social psychology perspectives such as identity theory. Watson, et al. (2007) sought to develop a risk-taking instrument that could reveal and confirm the nature of risk that motorcyclists assume while riding. In this last example, researchers considered how motorcycle passengers contributed to risk-taking behaviors.

As discovered in the preliminary topic research and the preceding literature review, two obstacles complicate the study of women motorcycle passengers. The first challenge is finding statistical and descriptive data while the second challenge is sifting through the terms that refer to motorcyclists, passengers, and riders. In short, inconsistencies in terminology blur the distinctions between passengering and riding. By doing so, data is co-mingled and interpretations

of the data are made more difficult. Lastly, data collection needs are difficult to assess if subsets of the population are masked. Clear terminology would enable public officials to better compile data, assess data needs, and plan for data collection.

I found few demographic details about passengers in the federal data while local and state data is out of scope for this research. By default, I rely upon federal data, which is a depository for crash data. In the United States, the individual states and territories report demographic data that is collected when motorcycle passengers are killed or injured. As an approximation, I relied on the data for the gender of fatally injured passengers as an assumption that most active passengers were women rather than men or children. In contrast, the demographics of active women riders are accessible because of licensing requirements, vehicle registrations, and in some cases training records. The state data channels allow for a broader description of women motorcycle riders by collecting basic demographic data such as gender, age, race, and residence. In addition, motorcycle rider data is available from local and state law enforcement that report sanctions for infractions of traffic laws. From a standpoint of regulatory compliance and adherence to traffic laws, motorcycle passenger data is less relevant since the preponderance of responsibility rests with the motorcycle rider.

With reference to motorcycle passengers, the primary focus in public policy has been the use of helmets to reduce injuries and fatalities. Packer (2008) characterizes public health advocates; academic researchers, motorcycle riders, and passengers as “micropractices and networks of power” that promote motorcycle safety and place the burden of responsibility on the individual motorcyclists. Packer (2008) suggests that because of the singular responsibility of riding safely, motorcyclists ameliorate risk through experience and training. Evidence of the application of public policy is found in public education and training.

As an example of public safety policy, NHTSA's "Safety in Numbers" (2014) public education brochure calls out how passengers can contribute to motorcycle safety. Three safety messages are directed at passengers, two of which have to do with riders' behaviors: use of a DOT certified helmet and impairment and one message that does not concern riders' actions but promotes helmet use by passengers. The premise of traffic safety research is reducing the factors that contribute to crash involvement. In the traffic safety literature, most of the research focuses on the motorcycle rider's experiences and actions. Where mentioned, women motorcycle passengers are described in connection with the effects of helmet use and impairment. As reported by the Governor's Highway Safety Association (GHSA), states that experienced an increase in fatalities in 2010 cited lower motorcycle helmet usage by motorcycle passengers as one of the reasons that contributed to the increase. GHSA noted that passenger helmet usage has dropped as much as 16% nationwide (GHSA, 2012). In 2004, NHTSA through NCSA evaluated the effectiveness of helmets for 1993 through 2002. The 2004 study, examined fatalities a passenger and a rider, with at least one fatality.

Researchers of American cultural experiences focus on the phenomena of the Harley-Davidson motorcycle and the appropriation of the outlaw biker image (Schouten & McAlexander, 1995; Joans, 2001; Martin, et al., 2006; Roster, 2007). Schouten and McAlexander (1995) describe the Harley subculture as the "new biker culture". Later Thompson (2009, 2012) redefines the term "new biker culture" to refer to middle and upper middle class riders. The more recent "new biker culture" research acknowledges the increased presence of women riders and to a lesser extent women passengers. While outlaw biker culture characterized several studies in the early to mid-2000s, touring and adventure riding emerged in more recent scholarly literature as the BMW motorcycle subculture and other touring groups

emerged as a topic for cultural and sociological inquiry (Schouten & McAlexander, 1995; Joans, 2001; Martin, et al., 2006; Roster, 2007).

Gaps in the Literature

The literature as a whole shed limited light about the purpose of this research, which is to address the lack of basic information about women motorcycle passengers. The most noticeable weakness in the literature is the absence of women motorcycle passengers as primary subjects. I found little descriptive information that could yield insights about the relationships and interdependencies of motorcycle passengers and riders that could be useful to traffic safety policy and program development.

The lack of data became apparent during the initial stages of the literature review. As a starting point, I sought data that would characterize active female motorcycle passengers. Deficiencies in the availability of data prevented me from starting with a viable description of the subpopulation of women motorcycle passengers. In many cases, analysis concerned understanding the passenger's motivation to become a motorcycle rider (Auster, 2001; Glasmer, 2003; Joans, 2001; Roster; 2007; Thompson, 2012). Two studies explored additional characteristics of motorcycle passengers; Joans (2001) described the roles of the passenger as something apart from an entryway to becoming a rider. Thompson (2012) explored how middle-class and upper class women passengers experience motorcycling. Although the literature is limited for women motorcycle passengers, there are studies regarding women riders that may contribute to our understanding of passengers.

Because the literature is rider-centric, women riders receive attention in relation to the attraction to and practice of motorcycling. Leisure studies identified constraints and characterizations associated with women's needs and experiences with leisure (Auster, 2001;

Glasmer, 2003; Martin, et al., 2006; Roster, 2007). Gender emerged as a factor in determining leisure choices and the manner in which women experienced leisure in a masculine -dominated sport such as motorcycling (Martin, et al., 2006; Gagné & Austin, 2010) and snowboarding (Thorpe, 2009). n research, men are studied in greater detail than women while studies that include or focus women riders do not include women passengers. With the exception of Haworth, et al. (1997), Watson, et al. (2007), and Tunnicliff, et al. (2011), few motorcycle safety studies investigate women motorcycle passengers. Beyond the scope of the present research, the field of medicine produces investigations of the physical effects of motorcycle crashes when passengers are involved (Murphy, et al., 2009).

With respect to safety, women motorcyclists receive scant notice. The literature review and available data resources suggest that women motorcyclists do not warrant special attention. Increasingly though, women riders are included as subjects in studies relating to motorcycling. In contrast, women passengers are less likely to be included in traffic safety studies. Passengers are receiving direct attention in several critical areas such as helmet use, injuries associated with riding two-up, and indirectly, as potential influencers of riders.

In addition to the lack of demographic data, topics related to women motorcycle passengers that are not present in the literature include: passenger learning and training, dependencies on the rider, risks of riding two-up, risky behaviors, risk-mitigation options for passengers, social influences that affect passengers, social influences that passengers exert on others, social interactions, status, and roles within the motorcycling community.

Research Questions

The literature review unveiled several themes that include early motorcycling experiences, male influence during the initial stages of motorcycling and through subsequent

stages when women gain experience and exposure. From the perspective of motorcycle safety, there is some evidence that women passengers play a role in helmet use and risk-taking. Based upon the literature review, the research questions are:

Do women who ride as motorcycle passengers share similar experiences?

Do women who ride as motorcycle passengers engage in safety behaviors?

The results of the literature review support the purpose of this research, which is to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses.

Conceptual Framework

As noted in Chapter 1, the theoretical orientation for this research is symbolic interactionism. Based upon a reliance on empirical data, symbolic interactionism is an appropriate starting point to investigate the nature and experiences of women who ride motorcycles as passengers. For motorcycle passengers, a key aspect of motorcycling is relationships with riders and others. Social interaction is at the core of the passenger experience. Relative to women motorcycle passengers, as women enter male-dominated activities, they introduce women-oriented perspectives and experiences that may shape the existing culture. In pursuit of the purpose of this research, which is to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses, I identified several variables that provide foundational data such as demographic characteristics, motorcycling experiences, and safety measures. Demographic variables include, country, age, race, education, occupation, employment status, and income. Variables that describe initial motorcycling experiences include the age and relationship to the rider during the introductory stage of motorcycling. Variables for the latter stage of motorcycling experiences include the passenger's relationship to the current rider; the most recent passenger experience; and the frequency of riding as a passenger. To

establish a baseline of safety measures, key variables include those that describe the use of protective gear such as clothing made expressly for motorcycling as well as motorcycle helmets.

Chapter 2 Summary

The theoretical framework that supports the present research is symbolic interactionism, which relies upon empirical data to investigate socially constructed realities. Because a motorcycle passenger relies upon a primary relationship with the motorcycle rider the precepts of symbolic interactionism provide a suitable framework to explore motorcycling-relationships and safety practices. A variety of disciplines such as leisure, consumerism, sociology, and traffic safety pay limited or no attention to women motorcycle passengers, to name a few. Primary themes in the literature include relationships, male influences, gender, social experiences, risk-taking, safety responses, and leisure consumption. Related to the present research, symbolic interactionism has been employed to the study of women motorcycle passengers from the perspectives of deviance (Thompson, 2009), culture (Joans, 2001), relationships (Thompson, 2012), and influence (Watson, et.al., 2012,Tunnicliff, et.al., 2010).

The literature review underscores the need to acquire additional information regarding the characteristics and experiences of women who ride motorcycles as passengers for the purpose of developing hypotheses. As shown, the majority of reported findings dealt with crash involvement as well as contributory factors such as the motorcycle rider's actions, behaviors and skills. The guiding research questions emerge: Do women, who ride as motorcycle passengers, share similar experiences? Do women who ride as motorcycle passengers engage in safety behaviors? To explore these research questions, variables of interest include demographic characteristics, motorcycling experiences, and safety measures.

CHAPTER 3

METHODS

As a first step, the research explores the experiences of women who ride motorcycles as passengers as a means to develop hypotheses. Outcomes of the literature review prompted these general inquiries as the research questions: Do women, who ride as motorcycle passengers, share similar experiences? Do women who ride as motorcycle passengers engage in safety behaviors? Consistent with symbolic interactionism, the underlying ontology is based on the belief that reality is socially constructed. Interpretations of the phenomena of women motorcyclists occur at the microsociology level. Because the study is exploratory in nature, the research was designed to collect foundational data upon which future research directions could be identified. The unit of analysis for this study is individuals who were involved in the same leisure activity. Since the topic of women motorcycle passengers had not been studied, flexibility was a prerequisite in the data collection plan. Patton (2002, pp. 40 - 41) describes design strategies, data collection, fieldwork, and design strategies as intentional, detailed, flexible, and requiring the integrity of the researcher. The research design reflects a targeted approach for acquiring and analyzing data.

Two-stage Research Design

As exploratory research, I sought information regarding a subpopulation of motorcyclists who are not primary subjects in the extant literature. I strove to establish a starting point for future research development. By incorporating qualitative procedures and anchoring the qualitative findings with survey results, the exploratory design produced a more complete or idiographic description of women who ride motorcycles as passengers. Since I worked with voluntary adult participants whose only commonality was motorcycling as a

passenger, I did not anticipate ethical issues and none were brought to my attention. Through a multi-faceted research design, data collection was positioned to provide experiential evidence about individual women motorcycle passengers.

Stage one employed qualitative methods: stage two featured quantitative methods with close-ended questions. Qualitative methods enabled me to conduct a preliminary scan of the topic. The intent of stage one was to confirm the reasonableness of the themes and questions that were raised in the literature review; identify nuances; describe individual experiences in greater detail; and illustrate singular and shared experiences of women motorcyclists. The aim for Stage two was to collect demographic data; describe characteristics of riding motorcycles; and the use of protective measures that reduce risks of harm while riding

Procedures

A two-stage exploratory qualitative methods research design was selected as the best approach for addressing the lack of data about women who ride motorcycles as passengers. In total, 138 women participated in the research. Subsequent to IRB approval, data collection commenced on July 16, 2012 and continued through January 23, 2013. Thirty-one women participated in stage one. Stage two included 107 individual survey respondents, of whom eight were fulltime motorcycle passengers.

Sampling

The overall research design relied on purposive sampling, which produced a small but intentional data set. A snowball or ripple technique was used to locate participants for stage one. An extended form of snowball sampling occurred during Stage two. The first adjustments to the research design consisted of clarifying the prerequisites for participants. Within the first weeks of implementation, with approval by the IRB, I redefined the target population to

include women *motorcyclists,* i.e., current or past motorcycle passengers as well as women motorcycle riders/operators. In stage two, sampling was not limited geographically; however, the eligible population was limited to participants that could be solicited through online methods and that had the requisite skills and ability to participate online.

Stage One

In stage one, naturalistic field observations occurred at four separate motorcycle events. One focus group included seven women motorcycle riders. One fulltime motorcycle passenger and one rider with passenger experience participated in interviews. An online discussion forum attracted twenty-two registered participants.

Instruments. Stage one's qualitative instruments included an interview guide, a field guide, and an online discussion forum. The number of participants and the approximate time commitment for each activity is shown in Table 1.

Table 1

Qualitative Instruments: Participants and Time Commitment

Researcher	Instrument	Experience	Participants	Time
Facilitator	Focus Group	Passenger	Seven	45 minutes
Interviewer	Guide	Rider, Passenger	Two	1 hour each
Participant Observer	Field Guide	Events, Activities	Variable	Up to 4 hours
Administrator	Online Forum	Passengers, Riders	Twenty-two	Variable

Consistent with symbolic interactionism, the face-to-face focus group and the online discussion forum provided the participants a means to share experiences. Creswell (2003) proffers that constructive knowledge claims rely on the assumption that individuals associate and add meanings to their experiences (Creswell, 2003, pp. 6 – 9). Because the focus group

consisted of women who participated in the same motorcycle club, constructive knowledge claims emerged based upon shared experiences. A field guide featured a list of activities for my observation and participation. Consistent with what Hood refers to the qualitative researcher as "a passionate participant" (Hood, 2006), I participated in motorcycling activities. At one regional event, I participated in a "bike" parade through the downtown of a south central city with an estimated population of 43,000 residents (US Census, 2013). As a participant observer, I interacted with vendors, spectators, event organizers, customers, exhibitors, and motorcyclists.

Interview guides were used for the seven-member focus group and the two interviews. A copy of the interview guide that was used for the interviews and the focus group is located at APPENDIX C Interview Guide. Entitled *Women Motorcyclists' Discussion Forum (*WMDF*)*, the main forum included twenty-two separate topics or individual forums. Forum topics included belonging, women motorcyclists, tips, learning to ride, passenger riding, riding with others, risk perceptions and behaviors, and leisure. The WMDF continued to be available through the early weeks of Stage two. Participants were instructed to begin participation by accessing *Informed Consent: Read Before You Enter the Forum.* A copy of the online discussion forum topics is located in APPENDIX D. With respect to the field events, because I used unobtrusive measures, I took care to protect individual privacy. If I spoke to an attendee, I identified myself and explained my research.

Recruitment. Initial recruitment was limited to venues that were readily accessible by virtue of cost and distance. The first recruitment strategies were local; I distributed information by personally speaking with friends, co-workers and family. Family members spoke to and emailed their friends and co-workers. The friends and family approach attracted thirty-one

women who had experience as motorcycle passengers. The lessons learned in stage one expanded the potential pool of participants because women motorcycle riders are more accessible than passengers. Subsequent to IRB Change One the target population was redefined to include women motorcyclists, i.e., current or past motorcycle passengers as well as women motorcycle riders, e.g. operators.

Data collection. Data collection for stage one commenced immediately after the proposal was approved on July 16, 2012 and continued through January 23, 2013. During stage one, qualitative data was obtained through face-to-face interactions with individuals and groups, an online discussion forum, observations of individuals and groups, and participation in events. Field observations occurred four times between July 16, 2012 and January 23, 2013.

Data recording. I used basic data recording procedures during stage one. While referencing the interview guides, I noted observations and captured individual statements. Immediately following the focus group and interviews, I reviewed my notes and added missing information. To analyze the results, I circled redundant words and statements. Asterisks denoted divergent statements. While still fresh in my mind, I summarized observations while the data from the interviews and focus group. Later, I returned to the data to record my lasting impressions. At the same time, I identified new and confirmatory information. Upon transcription to electronic format, I downloaded the raw data to qualitative software for analysis.

Disposition of data. Subsequent to de-identification, electronic data was stored in a secure location in my home. Handwritten field notes, focus group notes, and interview notes were placed in an inaccessible cabinet. In accordance with the applicable regulations and law,

all primary data forms will be destroyed within the proscribed time frames. Destruction will be accomplished through the use of a personal shredder.

Data quality assurance. Triangulation contributed to the accuracy and reliability of the results and was accomplished through the use of multiple data collection methods. The interactive approach provided the participants an opportunity to explain intention, correct errors, add information, and confirm on record what was mutually understood at the time. Member checks were part of the focus group discussions and the interviews as I summarized main points and clarified statements verbally during the process. As noted by Lincoln and Guba (1985, p. 314), member checks that are immediate and informal increase the accuracy of the data. During interaction with the participants, reflexivity on my part was important because at times I was drawn into the focus group discussions and lead to comment or question a statement.

During the research process, I maintained an Exce*l* spreadsheet as a means of documenting decisions that were considered during implementation and data collection. Accordingly, the audit trail included notes to document steps I have taken to promote trustworthiness through attention to credibility, dependability, and confirmability. In part, I relied on the audit trail to support assertions and the integrity of the data collection methods used throughout the study.

Data analysis. As briefly mentioned in the previous section on data recording, qualitative data was organized, formatted, and entered into NVivo, a qualitative software package. The qualitative data took several forms including electronic documents, spreadsheets, and note pages. Handwritten notes from the field observations, focus group, and interviews were typed and exported as documents to the qualitative software. Responses from the online

discuss forum were downloaded from the forum's website into electronic notes and exported as documents. The qualitative software enabled me to explore respondent's statements that fit neatly into the larger categories. I created classifications, which included relationships, behavior, passenger, person, risk, and gear. The classifications served as "buckets" for thematic categories. As coding commenced, I added nodes that reflected the topics mentioned in the qualitative sources. I enumerated and compared subtopics. Queries were used to examine relationships among the data.

Stage Two

Stage two consisted of an online survey that collected basic data including demographic data, motorcycling characteristics, and safety practices. The final survey was refined in September and was available online November 11, 2012 through January 23, 2013.

Survey design. Accessibility, security, and stability were taken into account during survey design. To support the purpose of this research, which was to collect data regarding women who ride motorcycles as passengers, I used an online survey service to administer the survey. The survey featured eighteen close-ended questions that included demographics, basic data regarding passenger experiences, and motorcycling safety practices.

Online testing. Prior to publishing the online survey, expert reviewers who included motorcycle industry professionals and motorcyclists provided feedback on the content and wording of survey questions. Several volunteers tested the online survey. In addition to reviewing the content and format of individual questions, the volunteer testers evaluated navigation and ease of use. An *Invitation to Participate* and the *Informed Consent Form* preceded the survey instruction. On average, the survey required less than fifteen minutes to complete.

Recruitment. Recruitment for the survey was accomplished through offering the survey online and employing social media along with other forms of Internet outreach. As part of the exploratory approach, early discoveries regarding women who ride motorcycles as passengers, led to several design changes associated with recruitment. The original proposal limited the research to the geographic region surrounding Harrisburg, Pennsylvania. IRB Change Two broadened the pool of potential participants to include any locale within the United States. In IRB Change Three, I expanded on the original snowball technique through friends and family to allow an online solicitation. As presented, the *Women in Motorcycling Academic Research* website featured a description of the research, background about the researcher, a links to the online discussion forum and the survey. IRB Change Four enabled me to accept and solicit participants from Canada. IRB. Change Five allowed participants from other countries besides the United States and Canada.

Data quality assurance. All participants were required to acknowledge that they had read the *Invitation to Participate* and *Informed Consent Form*. To minimize the possibility for responses from ineligible individuals, I limited the recruitment process to verifiable motorcycle sources. I located women's motorcycling websites and sought out women's clubs and organizations. These groups referred the research website to women's motorcycle trade associations, women's professional groups.

Using key words such as women motorcyclists, women motorcycle riders, female motorcycle riders, pillions, motorcycle passengers, women motorcycle passengers, and women co-riders, I located a variety of women-run sites. Some sites were blogs, discussion forums, women's associations and clubs, as well as commercial sites dedicated to serving women. In several instances, I registered as a forum member so that I could post an Invitation to

participate along with background information about the research. By accessing a network of women motorcyclists through the purposive recruitment methods discouraged participation by ineligible individuals.

Data collection. I created a dedicated website, i.e., www.research.womenmotorcycling.org to serve as a delivery vehicle for the online discussion forum and survey. The research website was published on October 8, 2012 and remained available through the data collection period that ended on January 23, 2013. The online survey was posted on November 11, 2012 and remained open through January 23, 2013. The website provided background information as well as the *Invitation to Participate* and *Informed Consent Form*.

Data analysis. For analysis of the survey data, I used statistical software, SPSS and Microsoft EXCEL spreadsheets. Data was cleansed so that identifying information was removed prior to analysis. I examined frequencies as a means to identify patterns for future research directions. Because respondents were required to identify themselves as motorcycle passengers or riders, I split the data files so that I could compare results by role. In addition, I reviewed the results by grouping the results by variables in order that passengers and riders were analyzed a one subpopulation.

Disposition of data. Survey data is stored in a secure data file on a private computer. Removable storage drives maintain back-up data and are stored in a secure, private location. All data has been de-identified so that confidentiality is preserved.

Survey respondents. After cleansing, the dataset numbered 107 complete cases. Of those, eight respondents identified themselves as passengers and 99 respondents identified as riders.

Chapter 3 Summary

A two-stage exploratory qualitative research design was used to gather descriptive data as a means to investigate and document the experiences of women motorcycle passengers. As a first step, the research explored the experiences of women who ride motorcycles as passengers as a means to develop hypotheses. From July 16, 2012 through January 31, 2013, I collected data for the purpose of describing the subpopulation of motorcyclists that included women with motorcycle passenger experience. Women motorcyclists over the age of eighteen were invited to participate in any of the research opportunities. Current and former motorcycle passengers as well as riders were eligible. Initially, only participants from Pennsylvania were included in the pool of available candidates. When the online discussion forum and questionnaires were launched, women motorcyclists from the United States and other countries were able to participate.

In total, 138 women participated in the research. Thirty-one women participated in stage one. Stage one data was collected by means of personal interaction with informants at locations in central Pennsylvania and through an online discussion forum dedicated to women motorcyclists. Stage two included 107 individual survey respondents, of whom eight were fulltime motorcycle passengers. In stage two, data was collected online and was not limited to local participation. A website was developed as a means to deploy the survey in stage two.

In stage one, qualitative instruments included an interview guide for the focus group and the two interviews and the participant-observer checklist for each motorcycling event. The online discussion forum, WMDF, featured ten individual topical forums. Field observations provided experiential data derived from participation in the events as well as observations of activities. Data recording for stage one included field notes, quotes and summaries from the

interviews and focus group, and discussion threads from the online discussion forum. Stage two data consists of responses to eighteen closed-ended questions. Qualitative and quantitative software were used to organize and analyze the data.

In the present research, the use of several different instruments mediates the limitations of the research design. Diverse data collection procedures such as personal interaction, field observations, the online discussion forum, and the online survey lessen the effects of sampling weaknesses. Triangulation, adjustments to the research design, and reflexivity enhance the credibility of the data.

CHAPTER 4

RESULTS

In this chapter I present the results from stages one and two. Descriptive statistics are displayed in the form of frequencies. The small exploratory dataset discourages statistical comparisons between passengers and riders; however, patterns in the data suggest future research directions. In keeping with the purpose of this research, the results describe the experiences and perspectives of women motorcycle passengers for use in developing hypotheses.

A two-stage exploratory qualitative research design featured qualitative procedures and quantitative data. Thirty-one women participated in stage one and in stage two, 107 women completed an online survey. Stage one produced field notes, quotes and summaries from the interviews and focus group, and discussion threads from an online discussion forum. Stage two produced responses to eighteen closed-ended questions. Results feature motorcycling-specific characteristics that describe the target population of women who ride motorcycles as passengers. Of the 107 cases, only eight are fulltime passengers. Demographic data are presented for 99 riders and eight fulltime passengers. All other data is presented for the entire subpopulation of respondents. Therefore, non-demographic data represents both fulltime passengers and riders, i.e. motorcycle operators who ride as passengers.

Stage One Data

Stage one includes information from four motorcycling events, one face-to-face focus group, an online discussion forum, and two interviews. I served as observer, facilitator, recruiter, and participant observer. Stage one began immediately upon approval by the Institutional Review Board of Indiana University of Pennsylvania.

Most of the qualitative data collection occurred between July and November of 2012 with the exception of one event that occurred in January of 2013.

The four field observations included two regional motorcycling events, i.e. bike week events, a motorcycle dealership open house and an international motorcycle show in New York. At each event, I played the role of spectator. At one of the regional motorcycling events, I was both spectator and participant observer. Each event provided a different venue, diverse activities, and a kaleidoscope of motorcycles and people.

The focus group took place in early September 2012. The seven participants were white, reported at least some college experience, and were currently employed. Most of the women had well over ten years of riding experience, were at least forty years old, and except for one had experience as motorcycle passengers. The majority of annual household incomes in 2011 topped $50,000 with most falling in the $50,000 to $74,999 range.

The two interviewees met the description of the targeted population. Both are professionals in their fields and fit the definition of the new biker culture as described by Thompson (2012), i.e., the new bikers view motorcycling as something that males and females do as riders rather than someone that they are. The first interview took place on September 21, 2012. The interviewee is an accomplished long-distance rider that had extensive passenger experience prior to becoming licensed. The second interview occurred on October 2, 2012. For each interview I followed the interview guide by introducing these topics: learning and enjoyment, risk-taking and safety, relationships and influence, to ride (as a passenger) or to drive (as a rider)?

The Women Motorcyclist Discussion Forum (WMDF) was published in July 2012 and remained open through November. As described in the methods chapter, the forum consisted of

ten individual topical forums. The online forum served as another form of focus group. The goal was to capture dialogue by topic in an interactive setting. Participants registered with a moniker. As the forum administrator, I reviewed the request and approved the registration. From July through November 2012, the forum attracted twenty-two registrants, fifteen of which were active contributors. Active participants included: two women that identified themselves as passengers; nine mentioned that they had previous passenger experience and became riders later on; four did not mention passenger experiences but instead referred to learning to ride as a rider.

Results

In these results, I report summarizations of qualitative data punctuated by notable quotations. Contextual references are included along with descriptive details of group and individual experiences. Stage one addresses the first of the two research questions: Do women, who ride as motorcycle passengers, share similar experiences?

Do women who ride as motorcycle passengers share similar experiences? To a woman, the focus group participants spoke of the sense of freedom that riding gives them and the strength of friendship that they draw from fellow women riders. The women confirmed their passion explaining that they "had to do it". Without hesitation each of them agreed that they prized being a ladies-only group. The planned weekend and vacation trips to distance destinations brought together the women who drew strength and friendship from their time together. Some looked forward to the monthly meetings that promised laughter and food as well as planning and plotting their next adventure. One of the founding club members reminded them that in the early days most of their time was devoted to bake sales in order to raise money for the club, the current club members were "sitting pretty" with a healthy club

membership fund. All of them expressed a shared sense of pride and the recognition that what they are doing, riding as an all-woman group, is special and not at all commonplace despite the increase in numbers of women riders. The focus group procedure provided a glimpse at a sisterhood of like-minded women that share a love of motorcycling.

The two interviewees had much in common: professionals, athletic, active, energetic, over forty years of age, and both are passionate motorcyclists. One difference is that one of the interviewees remained a passenger while the other became a rider. The passenger is a risk-taker outside of motorcycling. She leads groups of young people on team building adventure events. She is a skilled ropes instructor and recently zip-lined. When it comes to motorcycling, she enjoys not having to control and manage the risks. By contrast, the passenger –turned – rider liked being in control of managing the risks. Like the passenger interviewee, she did enjoy the relaxation of being a passenger. Both women were adamant about safety and preparedness. Regarding passion for riding, the interview results echo the focus group findings. As women riders and passengers, emotional engagement with motorcycling appears as common ground between the passenger experiences and rider experiences.

Contributors to the WMDF varied in their experiences and background. Some differences included the style of riding, amount of experience, crash experience, social relationships, and risk-taking behaviors. The initial riding seemed more memorable for the women riders than the passengers. Passengers and those with passenger experience used similar words to describe the appeal of passengering. Most of the contributors mentioned feelings such as appreciating scenery, being outdoors, escape of work pressures, feeling more like themselves, and doing something the brought them joy. Contributors expressed fears and

how they managed them especially after a mishap or near mishap on a motorcycle. Perceptions and experience with risk-taking varied.

The field events produced visually rich contextual data. To a great extent, event attendees expected attention. Colorful biker garb such as black leather, chains, vests awash with patches, and prodigious tattoos, begged attention. Activities such as the weenie bite and bike parade invited notice. To recruit participants in the research I handed women a paper copy of the Invitation to Participate and encouraged them to share the information with other women. A handful of women provided email addresses so that I could send them a link to the Women Motorcyclist Discussion Forum and the online survey.

Notable quotes. Among the participants in stage one, most of them attribute their interest in riding motorcycles to previous passenger experiences. Based upon positive experiences, the next step is to ride one's own motorcycle. As an example, "We use the motorcycle as our relaxing time. I love to get on the back with him and go through Amish countries. They love to look at the bike. I wish to get one of my own this summer." For some women, the opportunity to ride motorcycles comes from a personal relationship. As an example, this motorcyclist relates her initial exposure to motorcycling and what it means to her now. "Never thought I would enjoy riding a motorcycle until my x husband got one when we were together, now I just love riding and want a bike of my own."

Motorcycling adds another dimension to relationship as articulated by a rider-passenger; she explains, "It has given my husband and I another thing to experience and share together. It is invigorating and enjoyable. You experience the road in a whole new way." As illustrated previously, women experience social and leisure rewards as well as strengthening an existing relationship. As this passenger explains, "It's been a somewhat freeing experience as

well as something that has helped my husband of 20 years and I bond." Women frequently mentioned personal and social relationships when describing the appeal of motorcycling as in this case, "Opened up new possibilities for social activities. Brought my husband and I together. Provides great holidays and experiences."

The data regarding input suggests that speeding is an elusive and fleeting decision; yet for the passenger, excessive and mismanaged speed requires her attention and willingness to act to avoid risk. As an example, a woman that is new to riding shares that, "In my limited experience - there is a lot of influence because I ride with my boyfriend. He does listen to me when I say I don't like to go too fast or too near folks that make me uncomfy". The group's speed choice places passengers in a difficult position. In this example, the passenger shares an occasion when she felt afraid while riding in with a group: "(My) Spouse was driving faster than I was comfortable with (he was trying to keep up with friends that were riding ahead of us - they were on a totally different kind of bike than we were on". A passenger relates the importance of paying attention while riding. "Almost fell off the back of the bike as a passenger due to being new and my honey has no sissy bar...learned to pay more attention and wear the proper gloves in colder weather so I have a good grip on him!"

At the motorcycle events, the different images of women motorcyclists came together as hard-core bikers mingled with leisure-bound motorcyclists. Long braided hair held together by woven leather strips, black leather caps, bandanas, head wraps, and other assorted headgear signaled a person's commitment to looking like a biker. Fringed leather pants and jackets, tattoos, baldheads, long hair, leather vests, colorful embroidered patches, and shiny lapel pins symbolized and accentuated the biker image. By comparison, some groups of motorcyclists stood out in their neon-bright reflective jackets and vests.

Hardcore for these motorcyclists revolved around serious safety gear and high performance motorcyclists. In between the two extremes, the casual or weekend motorcyclists appeared along a spectrum of basic gear to street clothes without safety protection. In my experience and based upon the qualitative data, passengers and riders tend to dress like each other, i.e., casual wear, biker wear, or safety gear, etc. At the same time, groups of passengers and riders appear to dress in similar garb.

From the WMDF, most women felt that they were accepted by groups of motorcyclists. Several remarked that they "never felt unwelcome". A woman that describes herself as a novice passenger wrote that she feels comfortable with groups of motorcyclists. A rider who did not have motorcycling friends posted did not feel accepted by the motorcycling community. A contributor to the online discussion forum advised her to persist in finding the right group, join AMA, and always carry a phone to call for assistance.

Analysis

With respect to similar experiences, women provided information associated with early and ongoing passenger experiences. Each of the qualitative procedures: focus group, field events, interviews, and online discussion forum offered distinctly different contexts. At the same time, perspectives and experiences overlapped among participants. For example, as a whole, participants spoke of riding experiences and their meanings to them as individuals. Overall, women compared their experiences to other women who also rode as riders and passengers. Each woman shared at least one example of relationships with riders in the context of being a passenger or as a woman rider.

Focus group members shared passenger experiences that occurred in the distant past and more recently. Historically, the women's club experienced challenges in funding activities

but overcame the lack of funds through years of fund raising. Each member recalled club events such as traveling as a group of women motorcyclists. The women spoke glowingly and enthusiastically about the value of women-only club activities. During the focus group individual perspectives were gathered collectively to form a group account of club-sponsored events. Unlike the focus group, women who participated in the online discussion forum, the WMDF did not know each other prior to joining the forum. Accordingly, they had not participated in motorcycling together and they did not have a pre-existing relationship that could have influenced their contributions to the forum.

The four field events shared some things in common such as being public events that were promoted to draw in existing and potential motorcyclists. The two bike week events took place in the same region of Pennsylvania and may have drawn in similar if not some of the same attendees. Generally, the bike week events were built around tourism; in the case of the Gettysburg Bike Week, the Civil War battlefield is a tourist destination for motorcyclists as well as non-motorcyclists. The Harley Davidson motorcycle manufacturing plant in York drew in aficionados of Harley Davidson motorcycles. Both bike week events offered musical entertainment, food, and activities like flat track racing and a motorcycle parade. These events were well-attended by women riders and passengers as evidenced by my observations in the parking lots, road ways in and out of the region, parades, and attendees purveying the vendor areas. The dealership open house had some passengers but was dominated by riders, including some women riders. The open house included the opportunity to participate in riding motorcycles, which may have drawn more riders and fewer passengers to the event. In addition the event was a single day as compared to the other three events that lasted from three to seven days. The fourth event in New York City was an international motorcycle show that is

well known, held annually, and offers an array of motorcycling-related products and services. Because attendees may see many brands and types of motorcycles, the event is an opportunity to see new models, ask questions of sales personnel, and to sit on the motorcycles. I observed women passengers trying out the passenger seat of motorcycles and asking questions about the features of the bikes. With encouragement from friends, spouses, and sales personnel, some women were throwing a leg over a motorcycle for the first time or trying out different models to find the right fit. As a large event, the New York motorcycle show attracts diverse economic, ethnic, racial, social groups and individuals. In my observation, the motorcycle show projected a more eclectic atmosphere and fewer similarities to the attendees at the bike events.

Safety promotion varied at the events. Motorcycle insurers sponsor events and promote interest through give aways and chances to win prizes. The use of protective gear was evident in the numbers of vendors selling helmets, protective gear such as leather and textile jackets, boots, and similar items, as well as reflective items to make the motorcycle more visible. The gear vendors were busy with sales of merchandise as evidenced by numbers of shoppers and shopping bags.

Interviewees' accounts were personal and relationship-based. In these cases, the context was husband and wife as contrasted with club membership. In addition to personal experiences with the rider, the women also shared social experiences with others such as close friends and motorcycle rally attendees. The interviewees relayed narratives for specific instances between themselves and the rider that illustrated the give and take of riding. Spousal dynamics played a part in decision-making such as engaging in risky behaviors and providing support for riding motorcycles.

Stage one addresses the first of the two research questions: Do women, who ride as motorcycle passengers, share similar experiences? Themes that arose during stage one include use of safety gear, companionship, leisure, relationships, gender, and acceptance. Each of the qualitative procedures: focus group, field events, interviews, and the online discussion forum offered distinctly different contexts that contribute to the interpretation of findings from stage two.

Stage Two Data

Stage two addresses the each of the two research questions: Do women, who ride as motorcycle passengers, share similar experiences? Do women who ride as motorcycle passengers engage in safety behaviors? Building on the exploratory results from stage one data collection, Stage two was designed for further investigation of the phenomena through measurable results. Stage two features a pilot survey as a means to add value to the outcomes of stage one. The frequencies of survey responses provide the basis for formulating hypotheses.

Results

During stage two, an online survey captured data through close-ended questions. As described in Chapter 3, stage two data collection took place from November 2012 through January 2013. A survey was staged online and available through a dedicated research website. Recruiting efforts yielded 112 responses. After data cleansing 107 cases remained for further analysis. Of those, eight respondents identified themselves as passengers and 99 respondents identified as riders. The dataset includes the demographic results from the Women Passenger and Rider (WPR) survey. Approximately, three out of four respondents were from the United States. The remaining women were from other countries such as Canada, Australia, the Netherlands, the United Kingdom, Japan, Italy, and Poland.

Most respondents were white while eleven percent of the women were of other races including Black or African-American, Asian, Native Hawaiian, and mixed races. Most women in the sample were more than 40 years of age. Table 2 provides the percentages of women reporting age in one of four age brackets. The majority of women reported annual household incomes of less than $100,000 while one in four reported incomes of $100,000 or more. See Table 2 *Frequencies of Country, Age, Race, and Annual Income by Role, by Percent* for a breakdown of income levels by income bracket.

Table 2

Frequencies of Country, Age, Race, and Annual Income by Role, by Percent

Variables	Passengers (*n* = 8)	Riders (*n* = 99)
Country		
United States	100.0	71.7
Canada	0.0	14.1
Other	0.0	12.1
Age		
18 to 25	0.0	0.0
26 to 40	0.0	17.2
41 to 55	75.0	58.6
56 to 62	25.0	17.2
63 to 70	0.0	7.1
Race		
White	100.0	84.8
Black or African American	0.0	2.0
Asian	0.0	1.0
Native Hawaiian or Pacific Islander	0.0	1.0
White Am. Indian or Alaskan Native	0.0	3.0
White Asian	1.0	1.0
Other	0.0	4.0
Missing	0.0	3.0
Annual Income		
$0-$24,999	0.0	5.1
$25,000 - $49,999	25.0	13.1
$50,000-$74,999	25.0	33.3
$75,000 - $99,999	12.5	19.2
$100,000 $124,999	37.5	8.1
$125,000 - $149,999	0.0	9.1
$150,000 - $174,999	0.0	3.0
$175,000 - $199,999	0.0	0.0
$200,000 or more	0.0	3.0
Missing	0.0	5.1

Note. Annual income did not require a response.

Most of the women indicated that they were employed while twelve percent were not actively employed. Retirees accounted for 8% of the total respondents. Employed women reported occupations in eight different categories. Business, management, sales, and

administrative occupations outnumbered other types of occupations three to one. Professional fields such as legal, education, finances, and computer sciences accounted for fourteen percent. See Table 3 *Frequencies of Occupation, Employment, and Education by Role, by Percent* for a breakdown by occupation categories. Nearly ninety percent of the women had at least some college while seventeen percent reported graduate degrees.

Table 3

Frequencies of Occupation, Employment, and Education by Role, by Percent

Variables	Passengers (n = 8)	Riders (n = 99)
Employment Status		
Employed 40 or more hours per week	50.0	44.4
Self-employed	0.0	20.2
Employed 1 to 39 hours per week	0.0	18.2
Not employed, looking for work	0.0	4.0
Not employed, not looking for work	12.5	4.0
Retired	0.0	9.1
Disabled, not able to work	37.5	0.0
Occupation		
Retired, not employed	12.5	7.1
Business, Management, Admin.	37.5	31.3
Professional	0.0	14.1
Social Services	0.0	3.0
Arts, Media, Sports	0.0	4.0
Healthcare	12.5	11.1
Food Services	0.0	1.0
Trade, Maintenance, Manufacturing	0.0	2.0
Transportation	0.0	2.0
Other	25.0	24.2
Education		
High school or less	12.5	10.1
Associate degree or some college	62.5	40.4
Bachelor degree	25.0	31.3
Graduate degree	0.0	18.2

Note. "Other" responses refer to specific position titles that respondents provided in lieu of occupational categories.

Demographically, survey respondents were likely to be from the United States, between the ages of 41 and 55, white, educated, above average household incomes, and employed in a business-related occupation. Detailed demographic characteristics for 107 cases appear in Table 2 *Frequencies of Country, Age, Race, and Annual Income by Role, by Percent* and Table 3 *Frequencies of Occupation, Employment, and Education by Role, by Percent.*

In this section, the results describe motorcycling-specific descriptions of women who ride motorcycles as passengers. Data include introductory and current experiences. Characteristics include the age and relationship with the rider who provided the first passenger ride; the relationship with the current rider, length of time since most recent ride, and the numbers of rides for the prior riding season; and types and brands of motorcycles ridden as passengers.

The quantitative procedures in stage two were employed to address the two research questions: 1) Do women who ride as motorcycle passengers share similar experiences? 2) Do women who ride as motorcycle passengers engage in safety behaviors? With respect to similar experiences, women provided information associated with early and ongoing passenger experiences. For safety practices, respondents indicated the frequencies for wearing a variety of protective gear designed for motorcycling and non-motorcycling apparel.

Do women who ride as motorcycle passengers share similar experiences? More than half of the women received their first motorcycle ride before the age of 18. From ages 18 to 54, the numbers of women who took their first motorcycle ride dropped from eighteen percent to five percent.

Table 4

Age at Time of the First Motorcycle Ride

	Frequency	Valid Percent
Less than 14 years of age	38	35.8
14 to 17 years old	18	17
18 to 24 years of age	19	17.9
25 to 34 years of age	13	12.3
35 to 44 years of age	7	6.6
45 to 54 years of age	5	4.7
Never a passenger	6	5.7
Total	106	100

Ninety percent of the respondents indicated that males introduced them to motorcycling by providing them their first passenger ride. Women were introduced to motorcycling more frequently by boyfriends and were more likely to ride with spouses most.

Table 5

Relationships Between Passengers and Riders

	First Ride		Recent Ride	
	Frequency	Valid Percent	Frequency	Valid Percent
Spouse	8	7.5	41	38.7
Father	17	16.0	0	0
Male friend	19	17.9	11	10.4
Boyfriend	29	27.4	18	17.0
Brother	7	6.6	3	2.8
Uncle	4	3.8	0	0
Male cousin	2	1.9	0	0
Male neighbor	3	2.8	0	0
Mother	2	1.9	0	0
Female friend	3	2.8	1	.9
Girlfriend	1	.9	5	4.7
Other	4	3.8	16	15.1
Never a passenger	7	6.6	11	10.4
	106	100.0	106	100.0

Respondents were less likely to ride as passengers in the prior season. One in three women indicated that her most recent passenger rides was four or more years ago. Sixty percent of the women reported that they had not ridden as passengers within the past year.

Table 6

Timespan From the Most Recent Passenger Ride

	Frequency	Valid Percent
Less than one year ago	41	3.7
One to three years ago	27	38.3
Four to ten years ago	11	25.2
Over ten years ago	24	10.3
Never a passenger	4	22.4
	107	100.0

Of the women that had ridden from January to December of the prior year, one in three reported that they had ridden at least once or up to six times. In contrast, ten percent of the women reported that they had ridden as passengers over twelve times in the prior year.

Table 7

Passenger Rides During Previous Year

	Frequency	Valid Percent
1 to 6 times	33	31.4
7 to 12 times	5	4.8
13 to 20 times	2	1.9
21 or more times	8	7.6
None	57	54.3
	105	100.0

Most women reported that their most recent passenger ride occurred on a cruiser-style motorcycle. As expected, motorcycle styles that are designed for long distance riding such as cruisers and sport-touring motorcycles occurred more frequently than other types. In the absence of universally accepted definitions for types of motorcycles, respondents selected answers based on individual interpretations. The higher number of "other" responses suggests that the category types offered may have been unclear or incomplete.

As compared to the women riders that had not ridden as a passenger at all during the prior season, ten percent of the women riders reported passengering twelve or more times, which implies that passengering may be more than an occasional activity for women riders. The context, miles traveled, and reasons for riding as a passenger were not part of the present research, however; these types of information would be useful to shaping targeted safety approaches. For instance, women riders who wear motorcycling gear while operating

motorcycles may be more likely to wear protective gear when passengering. By modeling safe behavior as passengers, the women riders may make protective gear more acceptable and expected for passengers. The numbers of women riders who rode as passengers in the prior year suggests that women riders maintain a foothold in the passenger experience.

Among the types of infrequently reported motorcycle types included dual sport, standard, scooter, and trike. It's unclear if the fewer numbers of dual-sport, standard, motorcycles, scooters, and three-wheeled or trike motorcycles adds to an understanding of passengers. For example, the design of some dual sport motorcycles does not lend itself to carrying a passenger comfortably. Although dual sport motorcycles are intended for street and off road use, cruisers, touring, sport touring, and sport bikes are designed to ride on paved surfaces, which are conducive to a smoother passenger ride. Fewer numbers of standard motorcycles, scooters, and trikes may be a reflection of the recruiting limitations for the survey. In Tables 8 and 9, the reported motorcycle types and brand represent attributes of the respondents that may be useful for developing safety approaches for passengers.

Table 8

Most Recent Type of Motorcycle Used as a Passenger

	Frequency	Valid Percent
Cruiser	39	39.0
Other	18	18.0
Sport touring	13	13.0
Sport bike	13	13.0
Standard	6	6.0
Dual sport	6	6.0
Don't know	2	2.0
Scooter	2	2.0
Trike	1	1.0
Total	100	100.0

Note. Of the respondents that did not report a specific type, some reported that they rode multiple motorcycles, provided a model name rather than a type of motorcycle, or indicated that it was too long ago to remember.

Respondents reported a variety of motorcycle brands as shown in Table 9. The diversity of manufacturing brands suggests that the dataset was not limited to a few major brands; however; Harley Davidson motorcycles dominate the selections. Two out of three women reported riding a Harley Davidson, Honda, BMW, or Kawasaki motorcycle. Over 95 percent of respondents reported that they visit motorcycle dealerships.

Table 9

Brands of Motorcycles Used Most Frequently or Owned by Respondent

	Frequency	Percent
Harley Davidson	31	29.0
Honda	18	16.8
BMW	11	10.3
Kawasaki	11	10.3
Yamaha	10	9.3
Suzuki	7	6.5
Multiple motorcycles	6	5.6
Ducati	5	4.7
KTM	2	1.9
Other	2	1.9
Triumph	2	1.9
Can-Am	1	.9
Polaris	1	.9
Total	107	100.0

Note. Multiple motorcycles were listed as an "other" response. It's likely that some women own more than one motorcycle. Because multiple motorcycles was not a standard response, there may have been additional women that owned more than one motorcycle.

Do women who ride as motorcycle passengers engage in safety behaviors? To inquire if motorcycling evokes fear fro them, respondents were asked if they ever felt afraid while riding. Four out of five women respondents indicated that they have felt afraid while riding. The first inquiry for safety behaviors centered upon the frequency for uses of motorcycling protective gear and non-motorcycling apparel. Table 9 shows that the respondents were likely to wear protective gear designed to minimize injuries associated with motorcycle riding. The results indicate that women are most likely to wear motorcycle boots and gloves most of the time.

Table 10

Frequencies for Wearing Motorcycling Protective Gear (*n* = 107)

	Leather jacket	Textile jacket	Pants	Chaps	Boots
Never	26	16	34	54	4
Rarely	6	9	6	5	2
Occasionally	17	12	6	13	1
Often	16	8	10	18	3
Very Often	22	28	14	5	15
Always	20	32	36	7	82

Note. Missing values are excluded.

Out of nineteen items, women respondents wore protective gear more frequently than non-motorcycling apparel. The results indicate that the respondents engaged in safety practices more frequently than not.

Table 11

Frequencies for Wearing Casual and Motorcycling Footwear (*n* = 107)

	Sneakers	Sandals	Fashion boots	Motorcycle boots
Never	83	96	91	4
Rarely	9	8	6	2
Occasionally	6	1	5	1
Often	1	0	2	3
Very Often	6	0	1	15
Always	1	0	1	82

Although fewer in number, women who wore non-motorcycling apparel were more likely to wear a casual jacket or long-sleeved shirt than other types of apparel such as sneakers or long pants. Women respondents were more likely to wear a jacket designed for motorcycling than a casual jacket or long-sleeved shirt.

Table 12

Frequencies for Wearing Casual and Motorcycling Jackets (*n* = 107)

	Casual Jacket	Casual Shirt	Leather MC Jacket	Textile MC Jacket
Never	68	62	26	16
Rarely	16	11	6	9
Occasionally	14	14	17	12
Often	3	10	16	8
Very Often	4	6	22	28
Always	1	2	20	32

Protection for the lower extremities, such as protections for the legs, knees, and skin include specially designed chaps that cover the legs with leather or textile fabric. Chaps offer a degree of protection from skin abrasion and coupled with knee cups can reduce impact on the knees. Generally, motorcycling pants offer greater protection than casual long pants if they include abrasion resistant material, knee cups, hip pads, and full covering from ankles to the waist.

Table 13

Frequencies for Wearing Casual and Motorcycling Pants (*n* = 107)

	Shorts or capris	Long pants	Chaps	Motorcycle pants
Never	94	74	54	34
Rarely	8	9	5	6
Occasionally	2	8	13	6
Often	1	3	18	10
Very Often	0	3	5	14
Always	0	5	7	36

Women chose to wear motorcycle gloves most of the time with a few exceptions. The exceptions, which include wearing other gloves, i.e., non-motorcycling gloves and not wearing gloves at all shows that while motorcycling gloves were preferred on most occasions for most women, there are occasions when other gloves are worn or gloves are not worn at all.

Table 14

Frequencies for Wearing Casual and Motorcycling Gloves (n = 107)

	No gloves	Other gloves	Motorcycle gloves
Never	77	82	3
Rarely	9	9	4
Occasionally	7	7	6
Often	2	1	6
Very Often	7	6	12
Always	0	0	76

Helmets provide varying degrees of protection. As shown, some women use multiple types of helmets. On the whole, the respondents were most likely to wear a full-face helmet. The subpopulation that participated in the online survey used a variety of helmets indicating that women owned more than one helmet. The results do not take into consideration universal or partial helmet laws.

Table 15

Frequencies of Wearing Different Types of Helmets (*n* = 107)

	No Helmet	Half Helmet	3/4 Helmet	Full-face Helmet
Never	61	49	56	16
Rarely	5	9	8	8
Occasionally	6	10	6	6
Often	7	10	7	9
Very often	2	8	4	60

Findings

Eight findings emerged from the investigation of Stage two data. Explanatory details are stated where necessary to support the findings.

Finding one. Women respondents report similar ages, employment status, occupations, and annual household incomes.

Finding two. Women riders, who ride as passengers, are less likely to ride recently and frequently. Most of the respondents had ridden as passenger recently. Seven of ten respondents reported riding as passengers within the past three years. Over half of the riders had not ridden as passengers at all during the previous January through December. Of the respondents that rode as passengers the previous year, two out of three rode from one to six times.

Finding three. Women motorcyclists were young when they were introduced to motorcycling. One in three women were less than fourteen years of age or younger when they rode as a motorcycle for the first time. One in three women were teens or young adults at the time of their first ride.

Finding four. Some women do not visit motorcycle dealerships.

Finding five. Males are influential in introducing and facilitating motorcycling. One in three women are introduced to motorcycling by a boyfriend or spouse.

Finding six. The relationships, between women motorcycle passengers and riders are personal and social.

Finding seven. Women report being fearful at times when riding motorcycles.

Finding eight. Women wear protective gear more often than not.

Conceptual Framework

As noted in Chapter 2, social interaction is at the core of the passenger experience. Data from Stages One and Two underscored the importance of relationships between passengers with riders. Women who ride as motorcycle passengers, share initial and ongoing experiences with motorcycle riders. Conceptually, a symbolic interaction framework exposes the relationships between women motorcycle passengers and riders. The results indicate that women are likely to wear protective motorcycling gear. By choosing to wear protective gear, women who ride as motorcycle passengers are positioned to influence others. For safety practices, a symbolic interactionism theoretical orientation aligns with motorcycle passengers and their influence upon motorcycle safety.

Chapter 4 Summary

The purpose of this research was to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. A symbolic interaction framework was used to investigate the relationships between women motorcycle passengers and riders as well as providing a way to explore motorcycle passengers' influences in reference to motorcycle safety. The framework for the present research is premised on the nature of the

relationships involved in riding motorcycles. With respect to women, who ride motorcycles as passengers, the relationship represents social construction concerning two individuals.

The frequencies of survey responses are reported for reference as foundational information. Themes that arose during stage one include use of safety gear, companionship, leisure, relationships, gender, and acceptance. Motorcycling characteristics for 107 cases include relationships with initial and current riders, frequency of riding, and safety practices. Stage one is focused on experiences while Stage two addresses experiences and safety practices. The research questions include: 1) Do women who ride as motorcycle passengers share similar experiences? 2) Do women who ride as motorcycle passengers engage in safety behaviors? With respect to similar experiences, women provided information associated with early and ongoing passenger experiences. For safety practices, respondents indicated the frequencies for wearing a variety of protective gear designed for motorcycling and non-motorcycling apparel. To summarize, subsequent to analysis, eight findings emerged regarding demographic characteristics, motorcycling experiences, relationships, gender, fear, protective measures, and visiting motorcycle dealerships.

CHAPTER 5

DISCUSSION

Greater numbers of individuals engage in motorcycling for leisure and transportation than ever before. Contemporaneous with a heightened interest in motorcycling, more women are riding motorcycles as passengers and riders. As a first step, the purpose of this research was to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. The research questions include: 1) Do women who ride as motorcycle passengers share similar experiences? 2) Do women who ride as motorcycle passengers engage in safety behaviors? Concluding the discussion of the implications of the results of *Stages One* and *Two*, I suggest testable hypotheses based upon the presented findings.

Limitations

To the extent possible, I managed limitations for this research by choosing a qualitative design supported with basic quantitative data. Tradeoffs between the specificity of qualitative inquiry and the comparative measures of quantitative procedures added to the quality of the data; however, purposive snowball sampling increased the likelihood that themes were overlooked. Categorical limitations for this research included the procedures, the population, the data, and the researcher. Each limitation imposed constraints on my ability to accurately describe the phenomena and contributed to incomplete interpretations. Through a variety of strategies, each limitation was addressed so that the credibility of the data and analysis were not compromised to the extent that neither the data nor findings were unreasonably weakened.

The sampling frame was defined as women who ride motorcycles and were available from July 2012 through January 2013. A nonprobability sample was appropriate for this study since this is an exploratory type study. A probability sample is less important in this case because

I did not presuppose a causal inference between variables. Because this was a cross sectional study that relied on an availability sample there is no assurance that the dataset represents the population of women who ride motorcycles as passengers. Patton explains: "the purpose for a small random dataset is credibility, not representativeness" (Patton, 2002, p. 241). While Babbie (2001) contends that with qualitative research you could not generalize to the population, others disagree; Patton (2002), Schutt (2006), and Hood (2006) argue that you can generalize to similar populations. Triangulation through the use of these different data collection procedures strengthened the credibility, validity, and accuracy of the data and findings. Patton (2002) describes triangulation as reflection that requires the researcher to be cognizant and continuously revisiting the "reflexive screens" that influence the interpretation of the data. Creswell (2006, p. 15) suggests that triangulation of diverse sources of data "neutralizes" the biases in both quantitative and qualitative methods. In the present instance, because of the lack of information regarding women who ride as motorcycle passengers, generalization is less important than capturing foundational data. My experiences operating motorcycles and riding as an infrequent passenger sensitized my research. To explain, Charmaz (2003, p. 259) describes sensitizing concepts as...those background ideas that inform the overall research problem. To maintain the mediate the effects of my own bias, I practiced reflexivity so that my perspective was transparent and allowed for the divergent views of others. Malterud (2001) describes reflexivity preconceptions as the knower's mirror whereby the researcher's background and position affects focus and methods; the findings that are considered most appropriate; and the framing and communication of conclusions (Malterud, 2001, p. 483-484).

A targeted approach through verifiable women-sponsored motorcycling venues increases the odds that women motorcyclists participated in the survey. Assistance from associations that

were not constrained by gender posed a greater threat that men responded to the survey. Hence, authenticity of respondents cannot be objectively verified. As a means of quality of assurance, I reviewed the data for obvious errors. In particular, the open-ended responses for gathered through the online discussion forum revealed the most details. Although anyone could have conjured up plausible responses, I found the narratives to ring true with my own experiences and more importantly, the subpopulation of respondents. Although the efficacy and measurement of bias for web-based surveys remains questionable, I minimized the risks of bias by using a spectrum of contact methods, which lessened the likelihood of having non-motorcyclists respond. Geographic limitations were ameliorated based upon the use of online technology with is not constrained by geographical distances. To minimize bias in sampling from web-based population, I targeted motorcyclists through a variety of social media, personal contact, word of mouth, promotion through known motorcycling associations, a private email list, discussion forum administrators, women's motorcycling clubs, and professionals within the motorcycling industry. At the same time, recruitment through motorcycling-related organizations constrains the data to women motorcyclists that participate in motorcycling networks such as clubs, associations, organizations, discussion forums, and social media.

Women that do not participate in social networks may be unaware of them or may not participate for diverse reasons that were beyond the scope of this research. As a recruitment vehicle, the online survey was easily communicated to potential respondents thusly, increasing the speed of response. Conversely, the use of an online survey may have limited the available pool of participants. For instance, respondents must access the Internet and be comfortable with online survey tools. Heightened privacy concerns may discourage participation. Respondents may hesitate to disclose information that is unfavorable to them personally. Self-reported

information regarding use of protective gear was subject to the effects of social desirability, which portrays the respondents in a more favorable light. Because the response choices allowed women to indicate frequency of use rather than a yes-no response, the effects of social desirability were lessened. To some extent, the subjective interpretations and limited recruitment during stage one data were offset by the objective data and expanded recruitment that occurred as a result of the online survey during Stage two.

Interpretations and Relationships to the Literature

During stage one, five dominant themes emerged that included the use of safety gear, relationships, gender, acceptance, and leisure. An online survey administered during Stage two produced demographic characteristics, relationships with initial and current riders, frequency of riding, and safety practices.

Demographics

The respondents' income levels and educational achievements mirror the descriptions set forth by researchers such as Austin (2009), Thompson (2009), Gagne and Austin (2010) and Murphy and Patterson (2011) who describe a new biker culture that is populated by middle and upper class, highly educated motorcyclists. To illustrate, most of the respondents' income levels meet or exceed the median income for the American middle class. As reported by the Center for American Progress (September, 2014), the latest US Census data shows that the median income for the middle class is $51,939 in 2013 dollars. Of the respondents who are represented in this research 57 percent of them reported average annual household income between $50,000 and 99,999 and 27 percent reported income in excess of $100,000. In addition to income, women respondents reported educational attainment that reflects the new biker culture. For example, ninety percent of 107 cases have at least some college while 48 percent have at least a bachelor's

degree. The characteristics of the *Stage two* survey sample are consistent with the descriptions of a new biker culture.

In addition to demographics, motorcyclists have in common brand preferences, riding styles, charitable causes, and clubs. Characteristics of a motorcycling community show that there are distinct bounded groups that share purpose, identity, and camaraderie. Examples include: brand—specific clubs including Harley-Davidson, BMW, Honda Goldwing, Star Motorcycles, to name a few; rally-oriented such as Daytona, Sturgis, Laconia, Honda Hoot; race, gender, and religion (Blacks, women, Christian), causes (Cancer Awareness, Muscular Dystrophy, Veteran Memorial Rides, membership (ABATE, Harley Owners Group, Outlaw Motorcycle Clubs, American Motorcyclist Association), and riding style (sport bikes, cruising, touring, touring mobile community, adventure), as well as serious or extreme leisure (Iron Butt long-distance riding, track days).

Experiences

In the present research, ninety percent of women reported that a male introduced them to motorcycling. For adult passengers, invitations to ride may be based upon a socio-sexual relationship as described by Roster (2009). The most frequent passenger-rider relationships were with close and personal relationships such as spouses, companions, and boyfriends. As the results show, passengers rely on males to initiate them to motorcycling. If the goal is to become riders, the supportive environment includes male facilitators and mentors (Auster, 2001; Glasmer, 2003; Roster, 2007; Thompson, 2012). When women provided phrases and narratives to describe their engagement with motorcycling, the content reflected Auster's (2001) proposition that women undertake motorcycling when the family environment supports non-traditional activity as opposed to rebelling against societal barriers. In much of the literature,

being a passenger is viewed as a pivotal experience that precedes gaining a motorcycle license, (Auster, 2001; Glasmer, 2003; Joans, 2000; Martin, et al, 2006; Thompson, 2012); the present results suggest that the passenger experience is both destination and journey i.e., riding as a passenger is something that occurs at all stages of motorcycling. In short, riders do not entirely abandon riding as passengers because they have transitioned to operating motorcycles. The literature tends to limit the study of passengering to a prerequisite to riding. Rather, in the present research, passengering is a fluid activity distinct from learning to operate motorcycles.

Protective Actions

Broadly speaking, protective actions or safety measures pertinent to motorcycling include not only what motorcyclists wear but also what they do to minimize the risks of injury**.** The present research was limited to what motorcyclists wear in contrast to what they do such as speeding, recklessness, and impairment, to name a few. Although there may be a connection between all forms of risky behaviors, uses of protective gear are more readily defined as a recognizable visually apparent behavior. As such, the use of protective gear lends itself to self-reporting as compared to recall of perceptions of risky and possibly infrequent behaviors. As a starting point, protective gear was considered from women's frequency of wearing apparel designed for motorcycling and helmets. Ostensibly either a motorcyclist wears protective motorcycling gear or does not; alternatively, a motorcyclist may wear different types gear dependent upon the situations as well as the user's inclinations to sport certain apparel.

While the use of protective gear is largely a matter for personal choice, there are exceptions such as eyewear and helmets. Over the past decade, a variety of research studies have provided evidence of the efficacy of helmets in minimizing the risks debilitating injuries and fatalities. Based upon the results of helmet studies, NHTSA advocates universal helmet laws that

require all motorcyclists to wear helmets regardless of age, experience, or licensing status (Goodwin,. Kirley, Sandt Hall, Thomas, O'Brien, & Summerlin, 2013 p. 5-2). However federal law does not require helmets. Instead, each state determines by law and regulation the requirements for riding motorcycles. The Centers for Disease Control proclaim the lack of motorcycle helmet use to be a public health concern that can be measured in lives lost and economic costs in the form of insurance rates and medical care National Center for Injury Prevention and Control (2012).

NHTSA relies on a standard that helmets are estimated to be 37-percent effective in preventing fatal injuries to motorcycle riders and 41-percent for motorcycle passengers (Pickrell, & Liu, 2014). As noted in Chapter 1, Background (p.4) passengers appear to negatively influence helmet usage; using projections based upon observations of 1,000 motorcyclists, NHTSA reports that in 2014, through an observation study, more than half of all passengers observed did not wear compliant helmets that met federal standards of safety (Pickrell & Liu, 2015). The decreased use of helmets by motorcycle passengers suggests that targeted public safety messages should include the efficacy of helmets as a protective measure in reducing fatalities for motorcycle passengers.

In addition to wearing helmets, a visible and unmistakable pro-safety statement is wearing protective gear, and safety apparel such as reflective clothing. Although helmets are a form of protective gear, for the purpose of discussion, I refer to protective gear as specially designed apparel that protects upper body, upper and lower extremities, eyes, and skin. As cited in Watson, et al. (2007), de Rome et al, (2002) found that 45% of riders and 35% of passengers wore apparel that provided good protection for their legs while over 90% wore a protective jacket. In the present results, 41% of 107 women riders wore motorcycling pants or chaps every

time they ride. Unlike de Rome's findings, nearly half as many women or 49% of the riders wore either a textile or leather jacket as compared to 90%.

Theory

In this section, I discuss the connections to previous research and the opportunities to apply additional theoretical perspectives to the topic of women who ride motorcycles as passengers. The theoretical framework for the present research is symbolic interactionism. The preliminary findings suggest that motorcycle passengers' realities are socially constructed in reference to the act of motorcycling. The qualitative data provides passenger and rider perspectives for several topics such as safety gear, companionship, leisure, relationships, gender, and acceptance while the quantitative data was limited to demographics, initial and recent relationships and motorcycling experiences, and the use of safety gear. Upon analysis of the qualitative and quantitative data, it becomes apparent that additional theoretical perspectives deserve further investigation. These theories include social exchange theory as well as theories associated with interdependence, trust, control, and risk. An overview of theoretical perspectives is included in this section as well as in relation to proposed hypotheses that are presented later in this chapter.

Relationship Theories

The selected relationship theories present opportunities to gain an understanding of the interaction between motorcycle passengers and riders. In contrast to prevailing rider-centric theories where relationships are explored as a gateway to operating motorcycles, relationship theories promote a closer look at what goes on between passenger and rider. Relationship theories may assist in unlocking the potential for mutually beneficial safety practices. As described in the literature, passengers rely on males to initiate them to motorcycling and if the

goal is to become riders, the supportive environment includes male facilitators and mentors (Auster, 2001; Glasmer, 2003; Roster, 2007; Thompson, 2012). As women enter male-dominated activities, they introduce women-oriented perspectives and experiences that may shape the existing culture. Contemporary social theorists, As Blumer (1998) suggests that situations dictate actions, i.e., people construct individual and collective action as a result of interpreting a situation. For example, as women are introduced to motorcycling by men they find situations that limit their participation and may be unresponsive to their needs.

Relating to Gagne and Austin's (2010) observation of downplaying gender because of tokenism, Olstead suggests that women don't want to be considered as liabilities when engaged in edgework (Olstead, 2011). Thorpe (2009) found similar phenomena in the "male-defined symbolic structure" of snowboarding (p. 495). She describes how women achieve or are bestowed differing roles within the subculture. Thorpe suggests that women snowboarders are caught in what Bourdieu termed as a "double bind". As described by Thorpe, Bourdieu affirmed the phenomena that for women to behave like men they risk femininity but if they behave like women they are considered unfit (Thorpe, 2009, p. 495). By contrast, Thorpe points out that women have capital in snowboarding culture however where they gain in one area (respect for skills) they lose in another area (femininity). In addition to the woman who earns respect through commitment, skill, and experience, Thorpe describes two other characterizations for snowboarders: Snow bunnies are physically appealing snowboarders whose attractiveness gains capital in feminine terms but loses capital in terms of commitment and respect in sport (Thorpe, 2009, p. 495). By contrast, pro hos are a subgroup of snowboarder groupies who are treated differently than female snowboarders (Thorpe, 2009, p. 498). Pro hos participate in the snowboarder subculture as companions and followers rather than actively engaged in developing

snowboarding skills and experience. Similar to Joans' (2001) descriptions of the biker chick, lady passenger and passionate passenger, women associated with snowboarding are characterized in relation to how they fit into a male-dominated sport. Joans (2001, p. 93) asserts that the biker chick represents the ultra-feminine in so far as she portrays the most extreme female social role.

Given situations where they are discouraged from participating as riders, women may become what Joans (2001) described as the lady passenger, biker chick, or passionate passenger where, women act upon their interpretation of the opportunities or situations that arise from motorcycling. In some cases, they may change the culture or escape it. As argued by Blumer, culture and structure do not determine how people act; people shape culture and structure based upon their interpretation of a particular situation. Social organization, however, may shape the situations that people operate within (Blumer, 1988, pp. 75-77).

In the case of women motorcycle passengers acting within the bounds of a club, a group of motorcycling friends or within the constraints of the broader public domain may influence or be influenced. Depending on the sense of individual agency, women may choose to conform or transform the culture. Regardless, by their very presence, women motorcycle passengers who are active participants represent a potentially efficacious part of the motorcycling community.

Gender equality and inequality theory. In the United States, women are more likely to ride as motorcycle passengers, as noted in NCSA's periodic analysis of motorcycle injuries and fatalities in its periodic series and NHTSA's annual compilation: *Traffic Safety Facts*. In the literature, studies focus primarily on the experiences of women riders, often from the perspectives of leisure choice and self-actualization. While differentiating the *role* of operators

from the *role* of passengers, Roster (2007) does not distinguish between the passenger *experience a*nd the operator e*xperience*.

In some ways, the passenger stereotype is reinforced when the operator role is seen as empowering and somehow better. Women motorcycle drivers seem to exist apart from many of the motorcycle stereotypes. As described of motorcycle culture, politics, and power by Susan McDonald-Walker (2000, pp. 60 -61),a major factor identified by women riders is the sense of being genderless on the bike. In contrast to the pillions, women riders can mask gender more readily than passengers. Rider apparel is generally functional and is therefore sometimes difficult to discern gender. Thorpe (2009, p. 499), like Auster (2001), describes the importance of the gendered habitas, which is instilled in childhood regarding the role and use of the female body.

Ridgeway and Smith-Lovin (1999) posit that a gender system perpetuates cultural assumptions of gender differences, status and power inequality that permeate the frequent everyday interactions between men and women; however, they suggest that gender system is challenged when women are status- or power-advantaged over men (p. 191). Social networks, situations, identities, roles, structure, and context shape and sustain the gender system yet equality in role and status challenge inequality as a belief system (Ridgeway & Smith-Lovin, 1999). The pervasiveness of a gender system the pre-existing network of male-dominated interactions deserves examination.

Interdependence theory. Relative to the social and psychological relationships between motorcycle passengers and riders, interdependence theory provides a situation-based framework. Proposed by Rusbult and Van Lange (2003), the theory offers a comprehensive approach for investigating dyadic relationships. As described by Rusbult and Van Lange (2003), interdependent relationships may be examined in light of temporary, transformative, and long-

term situations. \Seen through a situation-based framework, the situations that arise while riding as a motorcycle passenger may be interpreted through an application of interdependency theory. Specifically, a key tenet proposes that relationships are dynamic and based upon "needs, outcomes, and preferences" (Rusbult & Van Lange, 2003, p. 355). From this perspective, interdependence features temporary aspects that may change over time. For motorcycle safety, influence may be understood as part of a situational structure that has the potential to transform within the relationship. In the case of motorcycling, the rider and the passengers may share similar or diverse goals. The structure of interdependency as described by Rusbult and Van Lange (2003, pp. 355 – 356), conceptualizes level, mutuality, and basis of dependence as well as co-varying interests. In the present research, the stage one results hint at the diversity of experiences or situations that reflect the nature of a passenger's dependence upon the rider. Interdependency theory provides insights that contribute to an investigation of passenger influence upon motorcycle safety.

Social exchange theory. Relationships viewed from the perspective of social exchange theory may be relevant for understanding how passengers interact with riders. The social exchange between the rider and passenger, which began with self-interest, establishes trust in the relationship based on experiences that happen over and over again and become broader in scope. As Blau (1964, p. 108) states: Only social exchange tends to engender feelings of personal obligation, gratitude and trust... ". Since trust can be seen as the key risk factor for a passenger, social exchange theory may provide insights that contribute to explaining why the passenger may not feel at risk.

Relational-interdependent self-construal (RISC). The dyadic relationship between women motorcycle passengers and riders suggests that riding as a passenger may differ from

relationships between women riders and men riders. In an application of the RISC model Morry and Kito (2009) found that relationships between women and men as well as same-gender relationships, who are influenced by others with whom they are close, have more trust in the relationships, enjoy aspects associated with companionship, and purport increased satisfaction with the relationships. For motorcycle passengers, relations with the rider depend upon the quality of the friendship, the degree of perceived trust, and may be influenced to some extent by the nature of the relationship in the context of behaviors while riding.

Risk Theories

In relation to women motorcycle passengers, risk concepts may shed light on the dynamics of risk attraction when someone else is in control.

The selected relationship theories suggest that trust is an element of dependence and exchange. Generally, the selected risk theories represent risk concepts that illustrate the rider's perspective as the one in control of the risk. Based upon my findings, relevant theoretical frameworks include voluntary risk-taking studies (Lupton & Tullich, 2002; Parker & Stanworth, 2005), attraction to risk (Apter, 2007; Celsi, 1993; Lyng, 1990), stimulation and control (Martin, et al., 2011; Trimpop, Kerr, & Kirkcaldy, 1999), optimism and perception of risk (Weinstein & Nicolich, 1993; Moen, 2007; McKenna, 1998; Natalier, 2001; Murphy & Patterson, 2011), the theory of planned behavior (Watson, et al., 2007; Tunnicliff, et al., 2011), and social cohesion (Murphy, 2011; Tunnicliff, et al., 2011).

Theory of planned behavior. As motorcycling is thought to be a social activity, the influence of others appears to be a compelling factor in rider decision-making. Group identity, group norms, the sharing of narratives, as well as moral and honor beliefs appear to contribute to the actions and thoughts of motorcyclists. Based on the understanding that rider behavior

determines their safety, Tunnicliff, Watson, White, Lewis, and Wishart (2011) explored the social context of motorcycling in order to identify influences on riders' behaviors. To do so, Tunnicliff, et al applied the decision-making model Theory of Planned Behavior (TPB). TPB is used to predict behaviors based on attitudes, subjective norm, and perceived behavioral control (Azjen, 1991; Doll & Azjen 1992). Because the subjective norm been shown to be a weak predictor for traffic behaviors, Tunnicliff, et al were interested in the effects of group norms, group identity, moral and personal norms as well as self-identity. Watson, et al., 2007 (p. 61) found that pillion passengers alter rider behavior. While passengers are generally a positive influence, on occasion: Riders admitted taking risks because they had a pillion on the back.

Control perspectives. Because passengers are not in control of the operation of motorcycles while in motion, passengers rely almost exclusively on riders' actions. The lack or presence of control appears to be a basic condition of feeling safe whether as a rider or a passenger. Martin, et al., found that women passengers who became drivers were motivated by a desire to gain control over the risks of motorcycling (Martin, et al., 2006, p. 185). Experiences lead motorcyclists to change behaviors either to improve skills and in so doing enhance control and reduce risk or become a rider in order to attain control. In the present research since only eight of the respondents were passengers, accordingly, the 99 women riders are more likely to provide rider-centric rather than passenger-centric views. For example, as riders, they are more aware of the effects of passengers' behaviors while riding and the attendant risks that were unapparent to them when they were passengers. From the passenger perspective, risk avoidance by declining to ride in uncomfortable situations may not be a viable alternative. Another option for passengers is to avoid risk by convincing others to refrain from risky behaviors.

Tunnicliff, et al. (2011) found that motorcyclists were more apt to share their experiences with fellow riders than with non-riders who would judge risk as uncontrollable rather than controllable. The study did not explore passengers as non-riders. Conceivably, women who ride as full-time passengers may view control differently than women who are also riders.

Reversal theory. For riders and passengers alike, Apter's (2007) proposition of a "protective frame" provides insights about how risk-takers distances themselves from acknowledging risk. Viewed through reversal theory, Apter (2007, p. 113) explains that acceptance of risk depends upon possessing an intact protective frame whereby everything that is experienced as arousal will feel good. Although this the protective frame concept may apply to any risk-taker, a motorcycle passenger's protective frame relies on a social construct with the rider.

Social construction of risk. The decisions and types of actions to mitigate risk depend upon external factors such as the public, non-riders, and other motorcyclists. Among the existing perspectives, Bellaby and Lawrenson (2001) suggest that motorcyclists socially construct their reasons for riding and justify the risk in opposition to the public's assessment of the physical dangers of riding. They propose that theory has not addressed the socially contested view towards the real consequences of risky riding behaviors. As Packer (2008) points out motorcyclists use narratives to share lessons learned with others as a means to maintain control of the risky experiences that motorcycling presents to them. From a public policy perspective, rider training has been a primary tool for increasing riding skills to minimize crashes. In addition to formal methods, riders also build skills and awareness through other means. Borrowing from Natalier's study (2001), Murphy and Patterson (2011, p. 1326) explain: "Knowledge is constructed by motorcyclists through official training, exposure to media

representations, communal interactions, and, most importantly through experience". As illustrated in the literature, when describing the risk of riding motorcycles, the focus is on the motorcycle driver who can improve safety through better skills and risk avoidance.

System autonomy. The advent of driver assistive technology has transformed the social interaction between helpful passenger and driver to social interaction with an autonomous computer-based system. Presumably, occupants of passenger vehicles and motorcycle passengers share the informal functions of providing feedback regarding the actions of other drivers, traffic, navigation, and road conditions In connection with motorcycling, the passenger's input and role has not been replaced by assistive technology to the extent that assistive technology is being integrated into passenger vehicles. In the case of motorcycle, assistive technology that is shared by motorcycles and passenger vehicles includes navigation systems such as GPS, real time ambient temperature, anti-lock brakes, and traction control, to name a few.

As revealed during stage one, women motorcycle passengers have played the role of navigator and environmental narrator. Cramer, Evers, Kemper, and Wielinga (2008), system autonomy investigated driver attitudes and personality traits in relation to heavy and light traffic juxtaposed with instruction and information provided by in-vehicle technology. They found that the traffic environment and the driver's locus of control effects trust and positive attitudes for the use of assistive technology. Similar to system autonomy, the use of information and instruction depends upon the agent's or motorcycle operator's acceptance and trust in the source of assistance, in this case, the motorcycle passenger. Relative to the relationship between motorcycle passengers and riders, rider personality traits and traffic environment may have a bearing on the passenger's ability to influence or control situations while riding.

Summary of Theoretical Perspectives

As shown, the examination of women motorcycle passengers evoked several streams of thought. The present research was framed by symbolic interaction, which lead to an exploration of social exchange theory followed by interpersonal theories. I reviewed social psychological theories such as gender inequality (Ridgeway & Smith-Lovin, 1999), interdependence theory (Rusbault & Van Lange, 2003), relational independent self-construal associated with the quality of relationships (Morry & Kito, 2009), and social exchange (Blau, 1964).

From the motorcycle safety perspective, I examined risk and traffic safety theories in search of a framework for future studies of women who ride motorcycles as passengers. Control perspectives offer insights about motorcycle passenger's decisions to become riders, i.e. operators. Further, control theories guide understandings of trust, safety perceptions, and risk-taking (Martin, et al, 2006, Tunnicliff, et al, 2011). The concept of a protective frame as described by Apter (2007) suggests to me that motorcycle passengers may judge riders according to the trade-offs between safety and the thrills that feed their interest in motorcycling. As associated with Bellaby and Lawrence (2001), motorcycling occurs in public setting where social constructions influence perceptions and beliefs about risk. As noted, these authors suggest that insufficient exploration has been done. I propose that social constructions of the risks undertaken by motorcycle passengers provide an additional perspective that should be included in a more expansive study of social constructions and the risks of motorcycling. Lastly, system autonomy perspectives, as described by Cramer, Evers, Kemper, and Wielinga (2008), should consider the functions that passengers once fulfilled and that are now controlled by assistive technology. The transition from voluntary human input via passengers to controlling system

technology has implications for driver – passenger relationships and potentially for safety within the traffic environment.

As discussed, theoretical frameworks that increase our understanding of motorcycle riders may be relevant to motorcycle passengers. While some commonalities exist between riders and passengers, there are distinctions that are not addressed in the present results. For instance, general views on risk-taking may be applicable to riders and passengers; however, new ways of understanding may be necessary. Safety measures, in particular, are developed with riders in mind. Safety measures, such as rider training, imply that riders control riding experiences. As evidence there are few, if any, safety messages or training programs directed primarily at passengers. Viewed from this perspective, the risks of motorcycling, which are shared between rider and passenger, are not being mitigated through a shared response. Consistent use of protective gear and reactions to real time riding events are enhanced if passengers and riders are working towards the same goals of enjoying the ride and minimizing risk. For instance, while riding, a couple encounters a sharper turn than expected; the passenger may decide to take action that conflicts with the rider's decision. Lack of shared knowledge, experience, awareness, training, and communication between rider and passenger may produce disastrous results.

Implications of the Findings

The results from this research provide insights about the perspectives, behaviors, and experiences of women motorcycle passengers and riders. By extension, the collected data and analysis informs our understandings of the subculture of motorcyclists that includes both men and women. In addition, the results of this research contribute to previous studies that informed this research.

Research Hypotheses

Based upon the findings, I propose several testable hypotheses for future consideration. The hypotheses are grouped according to three categories: characteristics of the subpopulation of women who ride as motorcycle passengers, passenger experiences, and use of protective gear. Variables associated with hypotheses follow the rationale for the hypotheses.

The characteristics feature demographic information that describes women who ride as motorcycle passengers. The results from the present research offered basic details about the subpopulation of women. As the next step, I suggest that socio-economic, leisure, and identity information builds upon these initial findings. In this section, I propose hypotheses associated with the new biker culture that was described in the literature. In addition, I propose hypotheses associated with passenger experiences and relationships. In all, I put forth twelve hypotheses that explore characteristics of women who ride as motorcycle passengers.

Hypothesis one. Women passengers are likely to be forty or more years of age, meet or exceed the United States' median income of the middle class, which is approximately $52,000 per household and have earned a bachelor's degree (United States Census Bureau, 2013).

Hypothesis two. Women passengers agree that motorcycling is a leisure activity more so than an identity that describes who they are most of the time.

Finding 1 states that women respondents report similar ages, employment status, occupations, and annual household incomes. As articulated in the literature, the results show that the respondents represent a new biker culture. Borrowed from descriptions by Austin (2009), Thompson (2009), Gagne and Austin (2010) and Murphy and Patterson (2011) who describe a *new biker culture* that is populated by middle and upper class motorcyclists who are highly educated. Thompson (2009, 2012) describes the new biker culture as motorcyclists who consider

motorcycling as an activity rather than an identity. Finding 2 asserts that women riders were unlikely to ride as passengers. More than half of the women had not ridden as passengers in the prior season. Most of the women had done so six or less times during the season.

To test hypotheses one and two, I suggest that there are two considerations. First of all, the variables reflect the basic characteristics of a new biker culture. Secondly, descriptive variables such as race, ethnicity, occupation, employment status, marital status, expenditures for motorcycling, contribute to an expanded description of contemporary women motorcyclists. Variables include: household income, household size, age, education, leisure, identity, race, ethnicity, occupation, employment status, marital status, and expenditures for motorcycling-related activities, products, and vehicles.

The first passenger experience may occur at any age. In the present case, most of the women were aged forty or more and were riders who have passenger experience. The advent of the first experience may signal the beginning of a lifelong interest in motorcycling; therefore the ages of women at the time of their first experiences may be an indication of who continues to ride motorcycles as a passenger or rider. The age at the introduction to motorcycling may also predict if the individual pursues becoming a motorcycle rider, i.e. operator.

Hypothesis three. Women who are introduced to motorcycling as children or adolescents are likely to become motorcycle riders.

Finding three asserts that women motorcyclists were young when they were introduced to motorcycling. Family is likely to be positively or negatively influential in reference to the initial riding experiences that occur when girls and young adults are less than eighteen years old and living at home. In the literature, when family as well as nonfamily act as facilitators and mentors, women are more likely to become riders (Auster, 2001; Glasmer, 2003; Roster, 2007;

Thompson, 2012. Auster (2001) contends that women riders rely upon family environments that support non-traditional activity as opposed to rebelling against societal barriers. It's unclear if family support for motorcycling depends upon an introduction to the sport by a family member or if support for non-traditional activities or motorcycling in general encourage motorcycling at a young age.

To test hypothesis three, variables include the age at the time of the first motorcycle rides, if the first ride was as a passenger or as a student operator, as well as the current and past status as passenger and rider. Additional variables of interest include: the age when the woman learned to ride, age when motorcycle license was obtained, years of passenger experience, and years of riding experience.

Hypothesis four. Women who are in a committed relationship and ride as passengers most of the time, do not fund motorcycling-related activities, services, products, or vehicles.

Finding four revealed that some women who ride as motorcycle passengers do not visit motorcycle dealerships. In reference to women's financial involvement in motorcycling, little is known about the purchasing habits of women who are in committed relationships. Demographic characteristics of the subpopulation are germane to the inquiry of women's financial roles in motorcycling. To test hypotheses four, variables include: the frequency of passenger riders per season, most recent passenger rides, licensed rider, marital status, gender of rider, types of purchases, and percentage of income spent on motorcycling –related expenditures.

The nature of the relationship between motorcycle passengers and riders is singular in that it exists between the two players. With mass transit such as airplanes, trains, and buses, passengers place their trust in strangers whom they may know little about, never see, and never ride with again. In contrast, presumably, motorcycle passengers know something about the rider,

may share an intimate relationship, and make decisions about riding with the same person in the future. Further, motorcycling takes place in public venues that include motorcyclists and non-motorcyclists. As such, motorcycling as a passenger consists of a personal relationship with the rider and a social relationship with others.

Hypothesis five. Young women who are less than twenty-five years of age are likely to receive their first passenger ride from someone whom they are dating.

Finding five suggests that women are likely to be introduced to motorcycling through someone that they are dating as evidenced by the frequency of boyfriends and spouses who provided the first motorcycle rides. Additionally, one in three women reported that they were ages of fourteen and twenty-four and therefore of age that may be associated with dating. To test hypothesis five, variables include type of relationship with riders for passenger rides from the first ride through the most recent ride, longevity of the relationships, marital statuses, and age at time of each relationship.

Hypothesis six. The relationship between women motorcycle passengers and motorcycle riders is primarily personal. Finding six asserts that motorcycling for passengers is personal and social in that the primary relationship is with the rider with whom a personal and close relationship is more common than not. Through interaction with the other motorcyclists in the motorcycling community, which includes friends, groups of riders, motorcycling events, associations, and clubs, women passengers have social opportunities that may not be possible outside of the motorcycling community.

Subcultures within the sport of motorcycling are dynamic creations. As motorcycling continues to gain popularity, an increasing diversity of subcultures forms around common interests. Motorcycling subcultures reflect motorcyclist' preferences for community. In many

instances, subcultures emerge from the commonalities as well as the differences among motorcyclists. Austin describes mobile touring motorcycling in term s of distinct bounded-groups that share purpose, identity, and camaraderie. Austin (2009) identifies the tribal markers or boundaries that include machine, clothing, and the perception of outsiders as evidence of like-minded people creating a community of riders. He describes rituals such as setting up camp, storytelling, participating in day activities with others and joining in a closing ceremony. As Austin points out: The ritualistic practices reinforce the identity of participants and help to distinguish the boundaries of the group (Austin, 2009, p. 87). Goffman (1959, p. 64) argues: a status, a position, a social place is not a material thing, to be possessed and then displayed; it is a pattern of appropriate conduct, coherent, embellished, and well-articulated. As described by several ethnographers, despite the material signs of motorcycling subcultures that provide clear signals as to their beliefs and preferred images, acceptance in the social places of the motorcycling communities derive from demonstrable actions (Joans, 2001; Martin, et al., 2006, Schouten & McAlexander, 1995; Thompson, 2009, 2012). Schouten and McAlexander (1995, p. 46) relate how their acceptance in the Harley culture was established through the action of helping a fellow biker in need of aid. To explore the nature of dyadic relationships and social interaction reference resources include marital and relationship theory.

Data that describes the motorcycling community arose out of interactive discussions in the focus group and online discussion forum. Because the term motorcycling community is subject to interpretation, the community can be constrained to a few close friends, acquaintances, family, or spouses and as expansive as perceived expectations, media and industry images, cultural attributes, clubs, and associations, etc. The data did not provide enough evidence to evaluate the motorcycling community's influence on passengers' perceptions and behaviors. To

test Hypothesis 6, variables include spouse, boyfriend, girlfriend, companion, close friend, friend, group member, club, association, events, group riding, social norms.

Hypothesis seven. There is no difference in the importance of trust in the rider for women who are fulltime passengers and women who are riders and ride part-time.

Women use words such as trust and control to describe relationships with riders. An underlying concern for passengers seems to be ongoing safety especially the avoidance of risky situations During stage one, participants used words such as closeness, sensuality, sharing leisure time, and being alone with the rider to describe their attraction to being a passenger. Participants characterized the relationship between passenger and rider as task-oriented, dependent, based upon trust and consideration, and as a shared experience. Planning leisure could be either personal as in planning a vacation or social when planning a destination weekend with a club. To test hypothesis seven, variables include trust, years of the relationship between rider and passenger, years of riding together, crash experiences, intimacy, disappointment, communication, respect, decision-making, fear, and doubts.

Hypothesis eight. Between women riders and passengers, there is no difference in the need for control over the decisions affecting motorcycling experiences.

The lack or presence of control appears to be a factor in motorcycling. As described earlier (pp. 73 – 74), Martin, et al. (2006) found that women passengers who became drivers are motivated to control their own risk exposure. In stage one, communication emerged as an important aspect of riding as a passenger. Verbal and non-verbal types of communication along with reaching agreement were among the issues associated with the relationship between passengers and riders.

To test Hypothesis eight, variables include perceptions of control, amounts of input, examples of decision-making, and assertiveness. The hypothesis could also be tested through scales associated with locus of control, assertiveness measures, and communication methods. Because of its emphasis on drivers, the Multidimensional Traffic Locus of Control Scale (TLOC) as described by Özkan & Lajunen, 2005) does not appear to fit the circumstances of passenger and rider but could be modified to accommodate the differences. The TLOC is a modification of Rotter's original 1966 Locus of Control Scale. Others have evaluated Rotter's construct of in connection with traffic accidents (Guastello & Guastello, 1986).

Hypothesis nine. There is no difference between women riders and passengers in the use of protective gear including motorcycle helmets, boots, gloves, and pants.

Because of the fewer numbers of respondents who were passengers, the differences in uses of protective gear are unclear. Data collection efforts captured information that was not available previously about women that ride motorcycles as passengers. To test hypothesis nine, variables include: protective gear, purchasing, situational use of protective gear, area of body protected, efficacy of protective gear according to industry and governmental requirements.

Hypothesis ten. During motorcycle rides, there is no difference in drinking habits, i.e., frequency and quantity of alcoholic consumption among women riders and passengers.

Women motorcyclists differ in the use of helmets and other protective gear such as motorcycle pants, gloves, and jackets, etc. Responses during stage one suggested that some women refrain from drinking while riding; others do not. Some women seem circumspect when describing situations such as riding with others, riding fast, drinking and riding, helmet use, and apparel. Passengers and riders remove themselves from risky situations, e.g. other risky riders or

groups. To test hypothesis ten, variables include characteristics and perceptions of drinking habits, social drinking, self-restraints, degrees of impairment, and preventive actions.

Hypothesis eleven. Motorcycle passengers impact safety while riding through supportive actions such as navigation, alerting riders to hazards, and minimizing distracting behaviors.

Participants in stage one described their experiences as passengers in terms of helpfulness. Both passengers and riders suggested that passengers make contributions to the safety and quality of the ride. For instance, passengers shared the need for them to be aware of the environment by providing a second set of eyes. By helping the rider, passengers not only alerted riders to hazards but also assisted in navigating traffic and destinations. Passenger assistance seems to strengthen the relationship of mutual dependency and responsibility for the ride. Women described riding in groups as leisure and in terms of risky group members. Social approval and support by others appeared as attributes of social riding. While several examples illustrate that passengers play a supportive role while riding, it's unclear from the data if an expressive role on their part shapes the relationship. To test hypothesis eleven, variables include types of passenger tasks, types of risks of mitigated by passenger actions, and examples of contributing to the ride.

Hypothesis twelve. Within the motorcycling community, there is no difference in status between women motorcycle riders and passengers.

As described the results from stage one, indirectly women address passenger status in terms of being new to motorcycling, acceptance by other motorcyclists, and feeling welcome. Riders describe status in terms of gender rather than as passenger roles. Distinctions between passengers and riders appear in relation to men that wished their wives would ride and the perception of women riders. In some cases, passenger experiences occur in the past so that riders

speak of admiration for women riders and their own desires to ride. A wealth of information may be accessible through motorcycling membership associations and social clubs. National organizations provide passenger-oriented workshops, training, and information; tapping into an established network that serves motorcycle passengers affords the opportunity to explore the topic more fully. Because the term motorcycling community is subject to interpretation, the community can be constrained to a few close friends, acquaintances, family, or spouses and as expansive as perceived expectations, media and industry images, cultural attributes, clubs, and associations, etc.

The numbers of women passengers who participate in the social aspects of motorcycling is unknown. As motorcyclists, women are afforded an occasion to forge relationships that are ordinarily outside of their social circle. Usually these relationships are dependent on whether the man rides and if women passengers are allowed in the group. While motorcycling has been recognized as a male-dominated form of leisure, women's roles are evolving as more women are introduced to motorcycling through men or on their own. It's unclear if the presence of women riders in social venues influences passengers' social interactions. Without data, it is unclear if women motorcycle passengers establish membership in motorcycling clubs or if they participate in club activities as companions in an auxiliary role. To test hypothesis twelve, variables include identity, status, perceptions and gender relations, and roles. Scales associated with status may be useful if motorcycling status can be defined.

Future Research

The present research identifies new aspects of motorcycling associated with motorcycling characteristics, relationships, and risk. Further investigation is warranted in each of these areas. Additional statistical analysis is possible with increased participation by women motorcycle

passengers. Several theories offer future research directions. With respect to women motorcycle passengers, theories that take into account attraction to risk, control, trust, and social influences offer insights. Because an aspect of this research is individual's safety perspectives risk theories that are associated with personal risk are appropriate. Elements of interdependence theory, social exchange theory, and symbolic interaction provide avenues for exploring the dynamics of the passenger –rider dyad. With the theory of planned behavior in mind, information gathering from the microcosm of the motorcycling community and in the macrocosm of public policy could benefit public health and traffic safety initiatives.

Chapter 5 Summary

Twelve hypotheses are presented. Hypothesis one: Women passengers are likely to be forty or more years of age, meet or exceed the median income of the middle class approximately $52,000 per household and have earned a bachelor's degree. Hypothesis two: Women passengers agree that motorcycling is a leisure activity more so than an identity that describes who they are most of the time. Hypothesis three: Women, who are introduced to motorcycling as children or adolescents are likely to become motorcycle riders. Hypothesis four: Women who are in a committed relationship and ride as passengers most of the time, do not fund motorcycling-related activities, services, products, or vehicles. Hypothesis five: Young women who are less than twenty-five years of age are likely to receive their first passenger ride from someone whom they are dating. Hypothesis six: The relationship between women motorcycle passengers and motorcycle riders is primarily personal. Hypothesis seven: There is no difference in the importance of trust in the rider for women who are fulltime passengers and women who are riders and ride part-time. Hypothesis eight: Between women riders and passengers, there is no difference in the need for control over the decisions affecting motorcycling experiences.

Hypothesis nine: There is no difference between women riders and passengers in the use of protective gear including motorcycle helmets, boots, gloves, and pants. Hypothesis 10: During motorcycle rides, there is no difference in drinking habits, i.e., frequency and quantity of alcoholic consumption among women riders and passengers. Hypothesis eleven: Motorcycle passengers impact safety while riding through supportive actions such as navigation, alerting riders to hazards, and minimizing distracting behaviors. Hypothesis twelve: Within the motorcycling community, there is no difference in status between women motorcycle riders and passengers.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this research was to describe experiences and perspectives of women motorcycle passengers for use in developing hypotheses. The two-stage research design afforded me the opportunity to develop new approaches for examining the phenomenon of women who ride motorcycles as passengers. The exploratory nature of this study is the first step for investigating the topic. Stage one brought to the light the need for precise terminology that better describes women who ride motorcycles. Results from stages one and two prompted me to identify theories and variables that warrant further investigation.

Research Approach

Because the research is exploratory, a qualitative design allowed for a variety of data collection procedures. The Indiana University of Pennsylvania Institutional Review Board approved the initial design and subsequent amendments that allowed for additional participants. A two-stage investigative strategy provided a broad perspective with a detailed focus for the experiences of women motorcycle passengers. Participants were limited to adult females who were current or past motorcycle passengers at the time of the research from July 2012 through January 2013. Initially, the research was delimited to Pennsylvania residents. During the initial stage, I explained the purpose of the research verbally and in writing. Participants were informed of their rights through the protection of human subjects verbiage and received contact information for my committee chair. For the second stage, a written explanation of the purpose, university contacts, and the protocol for protection of human subjects in two ways: the research website and online instruments each provided the disclosures and before responding each woman

was notified that by proceeding she acknowledged that she had reviewed the disclosures and could withdraw at anytime.

Stage one consisted of two interviews, a focus group, an online discussion forum, and four participant observer events. A total of thirty-one women participated in stage one. Stage two featured a research website linked to the survey. Targeted recruitment through a network of motorcycling social media and personal contacts resulted in 107 complete responses.

New Directions

While investigating the feasibility of research about women motorcycle passengers, I found little about passengers and more about what I thought I already knew, i.e., becoming a motorcycle operator. I turned my attention to official government statistics. As a motorcycle safety instructor, I was looking for the injury and fatalities associated with women motorcycle passengers. After combing through governmental reports, policy statements, and statistical data, I found information that referenced motorcycle passengers, however, the analysis of their experiences was slim to none. The statistics for 2012 seemed to beg explanation. As noted in Chapter 1, Background, more American women died as motorcycle passengers than as riders. At the same time, the numbers of reported injuries for riders was slightly more than for passengers (NHTSA, 2014). Overall fewer women were killed or injured from the previous year, yet the numbers of passengers' fatalities overtook riders' fatalities.

Other than crash data, helmets, and fatality counts, states are neither required nor motivated to collect information concerning passengers. The USDOT requires the individual states to report demographic, vehicle type, vehicle miles traveled, traffic safety information such as impairment, and crash involvement data to the NHTSA, which compiles nationwide data. The National Center for Statistical Analysis (NCSA), analyzes the data, develops reports, and

provides assistance to NHTSA. In turn, NHTSA provides expertise, performs traffic research, and presents traffic safety issues for policy development.

The search for an understanding of women motorcycle passengers became twofold, who are they and how do they fit into public policy development? Because this research was exploratory and intended to provide a foundation for future inquiry, most of the data and analysis in stage one featured the characteristics of women who ride as motorcycle passengers. A low response by fulltime women passengers in Stage two necessitated me to focus my attention more broadly on women riders who had passenger experience. By adding women riders and because there were only eight fulltime passengers in the sample, my investigation into women passengers evolved into an investigation of women who began riding as passengers and for many no longer rode as passengers. As a consequence, the results described herein prompted more questions than I anticipated.

At the start of the present research, I did not know the steps that other women took to become motorcycle operators. Like many women who rode learned to ride decades ago, I thought I was unique. As I met and came to know women motorcycle passengers through friends, family, and work, I observed a passion for motorcycling that was similar to mine but rooted in companionship rather than independence. I was perplexed and motivated to find out why women chose to remain fulltime women motorcycle passengers. In light of these results, I contend that women passengers along with riders possess the potential to influence use of protective gear through modeling safe behaviors and taking action when others do not. For instance, women passengers have the opportunity to refuse a ride if the rider is not wearing a helmet; likewise, women riders and passengers may refuse to ride with others such as group rides. While women that ride as passengers vary in terms of willingness and confidence in

speaking up, taking advantage of motorcycling products that offer another layer of protection is a statement of action.

I realized that if motorcycle safety lacked sufficient attention to motorcycle passengers, public policy makers do not possess the details about fulltime and part-time passengers. In my view, improved traffic safety will benefit from and informed public policy that accounts for passengers' experiences. I surmise that women who ride as motorcycle passengers have valuable contributions to offer and are overlooked as a resource for shaping the safety culture that is so important to drivers and passengers of all forms of road transportation. To advance the cause of motorcycle safety, I posit that a crucial part of planning must include motorcycle passenger data and analysis.

Chapter 6 Summary

At the outset of my research, I found few details about women motorcycle passengers. Governmental data and the results of literature review suggested to me that passengers dwelt at the edges of traffic safety policy and programs. Uncertain about the topic, I cast a broad net for data that challenged me to define, describe, and understand how women passengers are positioned within the areas of public policy and safety programs. My investigation began with the following observations: Women, who ride as passengers, rely upon riders to exercise good judgment and provide enjoyable experiences. The passenger-rider relationship is personal in that communication and input support safety and enjoyment. Women passengers participate in social activities that include group rides, motorcycling events, and club memberships. In some cases, social relationships shape safety behaviors while interacting with others. These preliminary findings ascertained that the following themes require further explorations: perceptions and use

of individual and social influence, perceptions and mitigation of risk, and expanded examination of the new biker culture

Since the inception of this research, motorcycle passengers have received more notice by state and local governments in the United States. The Safety in Numbers Newsletter (NHTSA, 2014c) published June 2014, calls upon passengers to take three actions 1) wear a DOT compliant helmet that meets safety standards, 2) encourage the rider to wear a compliant helmet, and 3) avoid riding with others that are drinking alcohol. These public messages suggest that women who ride as motorcycle passengers have an opportunity to influence others. Calling out passengers as a separate subpopulation is a step in the right direction. In my view and based upon the extant literature, injury and fatality statistics, and the findings described herein, the next steps in safety should engage passengers in protecting their own safety and in doing so, nudge non-safety-minded motorcyclists in the direction of a reduced risk culture. Women who ride as passengers and operate motorcycles are positioned to be advocates if safety practices.

My research suggests that opportunities for increased safety for women motorcycle passengers is hampered by assumptions that passengers are just along for the ride. As increased numbers of middle and upper-middle class women began motorcycling, the historical image of wild women hanging onto the backs of motorcycles fades away. In its place, safety-minded women seek motorcycling as leisure more so than identity as a biker. Innovations in technology will improve safety while enhanced training programs will provide better human responses. As the popularity of motorcycling continues to shape the traffic environment so shall the demographics of those that ride. In so far as motorcycles have back seats, there will be someone to occupy them. Safety for passenger and rider depends upon the conduct of all motorists and the vigilance and skills of motorcyclists themselves.

References

ACEM, The European Motorcycle Manufacturers Association. (2008). MAIDS: In-depth investigations of accidents involving powered two wheelers: Final report 2.0. Retrieved from http://www.maids-study.eu/pdf/MAIDS2.pdf

Alreck, P., & Settle, R (1995). *The survey research handbook: Guidelines and strategies for conducting a survey* (2nd ed.). New York, NY: McGraw-Hill.

American Public Health Association. (1987). Mandatory Motorcycle Use Legislation. Retrieved Policy Number: 8720, from http://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/mandatory-motorcycle-helmet-use-legislation

American Sociology Association. (2014). Glossary of sociology terms. Retrieved from http://www.asanet.org/introtosociology/documents/glossary.html.

Apter, M. (2007). *Danger: Our quest for excitement*. Oxford, England: Oneworld.

Auster, C. (2001). Transcending potential antecedent leisure constraints: The case of women motorcycle operators. *Journal of Leisure Research, 33*, 272–298.

Austin, D. (2009). Ritual and boundary distinction in a recreational community: A case study of motorcycle rallies and riders. *Qualitative Sociology Review 5*(2), 70 - 93.

Austin, D., & Gagné, P. (2008). Community in a mobile subculture: The world of the touring motorcyclist. *Studies in Symbolic Interaction, 30*, 411-437.

Austin, D., Gagné, P., & Orend, A. (2010). Commodification and popular imagery of the biker in American culture. *The Journal of Popular Culture*, *43*(5), 942 - 963.

Azjen, I. (1991). The theory of planned behavior. *Organizational Behavior & Human Decision Processes, 50*, 179 – 211.

Blau, P. (1964). Social exchange. C. Calhoun, J. Gerteis, J. Moody, S.Pfaff, & I.Virk (Eds.), *Contemporary Sociological Theory*. Maldon, MA: Blackwell Publishing.

Blumer, H. (1998). Symbolic interactionism. C. Calhoun, J. Gerteis, J.Moody, S.Pfaff, & I.Virk (Eds.), *Contemporary Sociological Theory*. Maldon, MA: Blackwell Publishing.

Charmaz, K. (2003). Grounded theory: Objectivist and constructivist methods. N. Denzin & Y. Lincoln (Eds.), *Strategies for Qualitative Inquiry* (2nd ed., pp. 249-291). Thousand Oaks, CA: Sage Publications.

Clark, H., & Schober, M. (1992). Asking questions and influencing answers. J.Tanur (Ed.), *Questions about Questions: Inquiries into the Cognitive Bases of Surveys* (pp. 15 - 48). New York, NY: Russell Sage Foundation.

Cohen D., & Crabtree, B. (2006). *Qualitative research guidelines project.* Retrieved from http://ww.w.qualres.org/HomeAudi-3700.html

Community Preventive Services Task Force. (2014). What works: Motor vehicle-related injury prevention: Evidence-based interventions for your community. Centers for Disease Control (Ed.), http://www.communityguide.org.

Cramer, H., Evers V., Kemper, N., & Wielanga, B. (2008). *Effects of autonomy, traffic conditions and driver personality traits on attitudes and trust towards in-vehicle agents*. IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, Los Alamitos, CA. Retrieved from http://hdl.handle.net/11245/1.295778.

Creswell, J. (2003). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Doll, J., & Azjen, I. (1992). Accessibility and stability of predictors in the theory of planned behavior. *Journal of Personality & Social Psychology, 63*(5), 754 - 765.

Elliott, M., Armitage, C., & Baughan, C. (2007). Using the theory of planned behaviour to predict observed driving behaviour. *British Journal of Social Psychology*, *46*(1), 69-90.

Ferrar, A. (2000). *Hear me roar: Women, motorcycles, and the rapture of the road*. North Conway, NH: Whitehorse Press.

Federal Highway Administration. (2014). *State motor-vehicle registrations: 2012*. Washington, D.C.: Federal Highway Administration. Retrieved from http://www.fhwa.dot.gov/policyinformation/statistics/2012/mv1.cfm.

Gagné, P., & Austin, D. (2010). Playing with the guys: Women's negotiations of gendered leisure and space. *International Journal of Motorcycle Studies*, *6*(2), 1 - 23.

Gold Wing Road Riders Association. (2014). Gold wing university seminars. *Rider Education Program*, 5. Retrieved from GWRRA: Gold Wing Road Riders Association website: http://gwrra.org/regional/ridered/RESeminars.html.

Gonzalez, C., & Martin, J. (2011). Scaling up instance-based learning theory to account for social interactions. *Negotiation & Conflict Management Research*, *4*(2), 110-128. doi:10.1111/j.1750-4716.2011.00075.x.

Goodwin, A., Kirley, B., Sandt, L., Hall, W., Thomas, L., O'Brien, N., & Summerlin, D. (2013, April). *Countermeasures that work: A highway safety countermeasures guide for State Highway Safety Offices*. 7th ed. (DOT HS 811 727). Washington, DC: National Highway Traffic Safety Administration.

Governors Highway Safety Association. (2012). Spotlight on highway safety: Motorcyclist traffic fatalities by state - 2010 preliminary data. Retrieved from http://www.ghsa.org/html/publications/pdf/spotlights/spotlight_motorcycles11.3.pdf.

Guastello, S., & Guastello, D. (1986). The relation between the locus of control construct and involvement in traffic accidents. *The Journal Of Psychology, 120*(3), 293 - 297.

Highway Loss Data Institute. (2014). *Motorcycles: Q & A*. Retrieved from http://www.iihs.org/iihs/topics/t/motorcycles/qanda.

Joans, B. (2001). *Bike lust: Harleys, women, & American society*. Madison: The University of Wisconsin Press.

Lupton, D., & Tulloch, J. (2002). 'Life would be pretty dull without risk': voluntary risk-taking and its pleasures. *Health, Risk & Society, 4*(2), 113-124.

Malterud, K. (2001). Qualitative research: Standards, challenges and guidelines. *The Lancet, 358*, 483 - 488.

McDonald-Walker, S. (2000). *Bikers: Culture, politics and power*. New York, NY: Berg.

McKenna, F., & Myers, L. (1998). Illusory self-assessments: Can they be reduced? *British Journal of Psychology, 88*(1), 39 - 51.

Megias, A., Candido, A., Catena, A., Molinero, S., & Maldonado, A. (2014). The passenger effect: Risky driving as a function of the driver-passenger emotional relationship. *Applied Cognitive Psychology, 28*, 254 - 258. doi:10.1002/acp.2989.

Moen, B. (2007). Determinants of safety priorities in transport--The effect of personality, worry, optimism, attitudes and willingness to pay. *Safety Science*, *45*(8), 848-863.

Morgan, G., & Smircich, L. (1980). The case for qualitative research. *Academy of Management Review, 5*(4), 491 - 500. doi:10.2307/257453.

Morry, M., & Kito, M. (2009). Relational-Interdependent self-construal as a predictor of relationship quality: The mediating roles of one's own behaviors and perceptions of the fulfillment of friendship functions. *Journal of Social Psychology*. *49*(3), 205 - 222.

Motorcycle Industry Council. (2008). *Motorcycling in America goes mainstream says 2008 Motorcycle Industry Council owner survey.* Retrieved from http://www.mic.org/downloads/newsreleases/2008_owner_Survey_LH_5-21-2009.pdf

Motorcycle Safety Foundation. (2010). *Quick tips: Guidelines for riding with a passenger on your motorcycle.* Irvine, CA: Motorcycle Safety Foundation.

Motorcycle Safety Foundation. (2014*). Basic rider course rider handbook.* (1st. ed.). Irvine, CA: Motorcycle Safety Foundation.

Murphy, J., Nyland, J., Lantry, J., & Roberts, C. (2009). Motorcyclist ‘‘biker couples’’: A descriptive analysis of orthopaedic and non-orthopaedic injuries. *International Journal of Injury, 40*, 1195 - 1199.

Murphy, S., & Patterson, M. (2011). Motorcycling edgework: A practice theory perspective. *Journal of Marketing Management, 27*(13 - 14), 1322 - 1340.

Natalier, K. (2001). Motorcyclists’ interpretations of risk and hazard, *Journal of Sociology 37*(1) 65-80. doi:10.1177/144078301128756201.

National Center for Injury Prevention and Control (2012). Motorcycle safety: How to save lives and save money. Centers for Disease Control (Ed.), *Motorcycle Safety Guide* (pp. 28). Retrieved from http://www.cdc.gov/motorvehiclesafety/mc/index.html.

National Center for Statistics and Analysis. (2009). *Motorcyclists injured in motor vehicle traffic crashes*. (DOT HS 811 149). Washington, D.C.: NHTSA. Retrieved from http://www-nrd.nhtsa.dot.gov/CATS

National Center for Statistics and Analysis. (2012). *Traffic safety facts: Motorcycles 2010 data*. (DOT HS 811 639). Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/listpublications.aspx?Id=17&ShowBy=Category.

National Center for Statistics and Analysis (2013). *Traffic safety facts: Motorcycle helmet use in 2012- overall results*. (DOT HS 811 759). Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/listpublications.aspx?Id=17&ShowBy=Category.

National Center for Statistics and Analysis (2014a). *Traffic safety facts 2012: A compilation of motor vehicle crash data from the Fatality Analysis Reporting System and the General Estimates System*. (DOT HS 812 032). Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/listpublications.aspx?Id=17&ShowBy=Category.

National Center for Statistics and Analysis. (2014b). *Traffic safety facts: Motorcycles 2012 data.* (DOT HS 812 035). Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/listpublications.aspx?Id=17&ShowBy=Category

National Highway Traffic Safety Administration. (1999). *Motorcycle safety* (DOT HS 807 709) Washington, D.C.: National Highway Traffic Safety Administration.

National Highway Traffic Safety. (2014). Motorcyclists: The choices you make are more important than you think. *Safety in numbers* (DOT HS 812 036). Washington, DC: National Highway Traffic Safety Administration.

Office of Behavioral Safety Research. (2007). *Summary of Novelty Helmet Performance Testing*. (DOT HS 810 752). Washington, DC: National Highway Safety Administration. Retrieved from http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Studies%20&%20Reports/Associated%20Files/Novelty_Helmets_TSF.pdf.

Olstead, R. (2011). Gender, space and fear: A study of women's edgework. *Emotion, Space and Society, 2*, 86 - 94. doi: 10.1016/j.emospa.2010.12.004.

Oxforddictionaries.com. (2015). *Ride pillion. Oxford dictionaries.* Retrieved from http://www.oxforddictionaries.com/us/definition/american_english/pillion .

Özkan, T., & Lajunen, T. (2005). Multidimensional traffic locus of control scale (T-LOC): factor structure and relationship to risky driving. *Personality and Individual Differences*, *38*(3), 533 - 545. doi:10.1016/j.paid.2004.05.007.

Packer, J. (2008). *Mobility without mayhem: Safety, cars, and citizenship*. Durham, N.C. and London: Duke University Press.

Pennsylvania Department of Transportation (2010). *Fact Sheet: Mopeds, motor-driven cycles and motorcycles.* Retrieved from http://www.dmv.state.pa.us/pdotforms/fact_sheets/fs-momo.pdf.

Perlman, A. (2007). The brief ride of the biker movie. *International Journal of Motorcycle Studies* (*March*), 1 - 24.

Pickrell, T., & Liu, C. (2014). *Motorcycle Helmet Use in 2013—Overall Results.* (DOT HS 812 010). Washington, DC: National Highway Traffic Safety Administration. Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/ListPublications.aspx?Pubno=812010.

Pickrell, T., & Liu, C. (2015). *Motorcycle Helmet Use in 2014—Overall Results.* (DOT HS 812 110). Washington, DC: National Highway Traffic Safety Administration. Retrieved from http://www-nrd.nhtsa.dot.gov/Cats/ListPublications.aspx?Pubno=812010.

Ridgeway, C., & Smith-Lovin, L. (1999). The gender system and interaction. *Annual Review of Sociology, 25*, 191 - 216.

Roster, C. (2007). 'Girl Power' and participation in macho recreation: The case of female Harley riders. *Leisure Sciences, 29*(5), 443-461.

Rusbult, C., & Van Lange, P. (2003). Interdependence, interaction, and relationships. *Annual Review of Psychology*, *54*, 351–75. doi: 10.1146/annurev.psych.54.101601.145059.

Rutter, D., Quine, L., & Albery, I. (1998). Perceptions of risk in motorcyclists: unrealistic optimism, relative realism and predictions of behaviour. *Journal of Psychology, 89*, 681 - 696.

Satkoske, V., Horner, C., Polack, E., Kappel, D., & Mattson, M. (2013). Mandating the use of motorcycle helmets: What are the issues? *Bulletin of the American College of Surgeons*, 8. Retrieved from http://bulletin.facs.org.

Thompson, W. (2012). "Don't call me biker chick": Women motorcyclists redefining deviant identity. *Deviant Behavior, 33*(1), 58 - 71. doi: 10.108001639625.2010.548292.

Thompson, W. (2009). Pseudo-deviance and the ‘‘new biker’’ subculture: Hogs, blogs, leathers, and lattes. *Deviant Behavior, 30*(89), 89 - 114. doi: 10.1080/01639620802050098.

Tunnicliff, D., Watson, B., White, K., Lewis, I., & Wishart, D. (2011). The social context of motorcycle riding and the key determinants influencing rider behavior: A qualitative investigation. *Traffic Injury Prevention, 12*, 363 - 376. doi: 10.1080/15389588.2011.577653.

United States Census Bureau (2013) *State and county quick facts*. Retrieved from http://quickfacts.census.gov/qfd/states/42/4287048.html.

Vance, R., Renz, M., & Hoskins, A. (2009). *Evaluation of Pennsylvania's Motorcycle Safety Program: Final Report.* Harrisburg, PA: Pennsylvania Department of Transportation.

Windwalker Corporation and Highway Safety Services. (2011). *Model national standards for entry-level motorcycle rider training*. (DOT HS 811 503). Washington, D.C.: National Highway Traffic Safety Administration.

Watson, B., Tunnicliff, D., White, K., Schonfeld, C., & Wishart, D. (2007). *Psychological and social factors influencing motorcycle rider intentions and behaviour*: Canberra, ACT: Australian Transport Safety Bureau.

Weinstein, N. (1984). Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology*, *3*(5), 431-457.

APPENDIX A

INVITATION TO PARTICIPATE

Indiana University of Pennsylvania
Indiana, PA 15705

Dear motorcyclist,

I am undertaking a study of women motorcyclists and I need your help. I am a doctoral candidate at the Indiana University of Pennsylvania in the Administration and Leadership Studies program and a motorcyclist.

The objective of this study is to collect the experiences and perspectives of **women motorcyclists**. The information from this study will increase the understanding of women motorcycle riders and passengers which will be beneficial to motorcycle safety programs and research. Your responses will be useful in determining future research directions.

From August through November 2012, I am collecting details on women motorcyclists, including passengers in the following areas: riding and social experiences, relationships, demographics, perceptions of women motorcyclists, and risks of riding.

There are two ways for you to participate:

Online Discussion Forum

Online Questionnaire

All information from the research will be kept strictly confidential, and no identifying information about you will be shared. Your written responses including comments, opinions, and suggestions will become part of the results of this research.

All participants are required to provide informed consent in order to participate.
I will be in touch with you to provide further instructions.

Ginger

Ginger L. Bucher, Researcher
hsxm@iup.edu

Dr. Mary Jane Kuffner Hirt, Professor

Political Science Department
102 Keith Hall Annex, 390 Pratt Drive
Indiana, PA
724/357-2290

APPENDIX B

INFORMED CONSENT FORM

Indiana University of Pennsylvania
Indiana, PA 15705

You are invited to participate in a research study about women motorcycle passengers. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask. You are eligible to participate because you are an adult woman motorcycle passenger.

The purpose of this study is to understand experiences and perspectives of women motorcycle passengers. Research results are intended to be interesting and informative as well as beneficial to the sport of motorcycling. Safety programs, motorcycling associations, motorcycle retailers, and manufacturers may find the results of this study useful for developing programs and products for women.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time. If you request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence. The information obtained in the study may be published in a variety of forums, both academic and popular.

The researcher for this project is a Doctoral candidate at Indiana University of Pennsylvania in the Administration and Leadership Studies Ph.D. Program. She is supervised in this project by:

Dr. Mary Jane Kuffner Hirt, Professor
Political Science Department
102 Keith Hall Annex, 390 Pratt Drive
Indiana, PA
724/357-229

Contact information:
Ginger L. Bucher, researcher
275 Iroquois Trail
York Haven, PA 17370
717/676-7190
hsxm@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board or the Protection of Human Subjects (Phone: 724/357-7730).

APPENDIX C

Interview Guide

Learning to Ride

- How were you introduced to motorcycling?
- What are some of the things that you were told to do as a passenger?
- What have you learned since?

Appeal

- What things do you enjoy about motorcycling?
- What things do you enjoy about being a passenger?

Perceptions

- How do others react to you as a motorcyclist such as family, friends, co-workers, and non-motorcyclists?
- What do you think it means to be a passenger?

Identity

- How does being a motorcyclist define you?
- How strongly do you identify yourself as a motorcyclist?
- How strongly do you identify yourself as a passenger?

Risk-taking

- Describe some of the things that you've done while riding and said "Wow, that was risky!".
- Describe some things that your rider does that you think are risky.

Safety

- How do you manage risk while being a passenger?
- Are there things that you think others should do to be safe?

- To what degree do you feel in control of your safety as a passenger?

Influence

- How do you think you influence other passengers?
- How do you think you influence riders? Your own rider?
- Where do you think you have the most influence?

Relationships

- How do you think motorcycling affects your personal relationships?
- Has your attraction to motorcycling affected your relationships with others?

Riding as a passenger or rider

- Have you thought about learning to ride a motorcycle?
- If yes, what has prevented you from doing so?

APPENDIX D

Online Discussion Forum

Learning

- How did you learn to ride? Who taught you?
- Discuss some of the useful things that you learned. Discuss what you weren't taught and why it matters.

Youth

- How does your age influence your riding?
- As you mature, are there things you do differently while preparing for a ride or while on a ride?

Women motorcyclists

- In what ways has being a woman influenced your riding?
- As a woman motorcyclist, do you ever feel unwelcome or uncomfortable around male motorcyclists?

Being and belonging

- How do you see yourself in the motorcycling community? Do you act differently when you are riding?
- What does it mean to be a motorcyclist? How do you fit in with others in the riding community?

Relationships

- Describe your relationship with the person or people you ride with the most.
- How do those relationships influence your riding?
- What are the negatives that develop out of motorcycling relationships? Discuss the positives that come with motorcycling relationships.

Living on the edge

- What actions do you take to be safe while riding?
- Discuss opportunities to increase safety for motorcyclists.

Thrills and chills

- Share some of more thrilling experiences you have had on a motorcycle.
- Describe times when you have been scared. Describe times that you found exhilarating.
- What types of risks do you take in other areas of your life? How does your experience of riding compare to other risks you take?
- Share some of more thrilling experiences you have had on a motorcycle. Describe times when you have been scared. Describe times that you found exhilarating.

Playtime

- Discuss the characteristics of motorcycling that motivate you to ride. What needs does riding satisfy for you?
- Describe your commitment to motorcycling. For example, how much of your time and resources are devoted to riding?
- Discuss your leisure activities and interests as they relate to riding.

APPENDIX E

Women Passengers and Riders Survey

Women Passenger and Rider Survey

You are invited to participate in a research study about women motorcyclists. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to contact Ginger Bucher hsxm@iup.edu. You are eligible to participate because you are an adult woman motorcyclist.

In the following questionnaire, you will be asked about your experiences, background, opinions, and suggestions. Your voice matters. Your candor is appreciated.

The purpose of this study is to understand experiences and perspectives of women motorcycle passengers. Your responses as a woman motorcyclist and rider adds another dimension to this research.

The following questionnaire is intended to be interesting and informative as well as beneficial to the sport of motorcycling. Safety programs, motorcycling associations, motorcycle retailers, and manufacturers may find the results of this study useful for developing programs and products for women.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time. If you request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence. The information obtained in the study may be published in a variety of forums, both academic and popular.

The researcher for this project is a Doctoral candidate at Indiana University of Pennsylvania in the Administration and Leadership Studies Ph.D. Program. She is supervised in this project by:

Dr. Mary Jane Kuffner Hirt, Professor
Political Science Department
102 Keith Hall Annex, 390 Pratt Drive
Indiana, PA
724/357-229

Contact information:
Ginger L. Bucher, researcher
275 Iroquois Trail
York Haven, PA 17370
hsxm@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board or the Protection of Human Subjects. (Phone: 724/357-7730).

Thank you for your interest, time, and thoughts about being a woman motorcyclist! Please take your time and reflect on your experiences and involvement in the sport of motorcycling.

Some basic terms:
MOTORCYCLIST includes both riders and passengers
PASSENGERS are those who are not operating the motorcycle
RIDER and OPERATOR means the person who is operating the motorcycle
RIDING refers to both passengers and riders

Getting Started
Select the response that most closely describes your experiences. Include your comments and explanations in the text boxes.

Sit back and enjoy the the questions!

1. Confirm your primary role as a woman motorcyclist.
(Note: You may be able to do both. Which one do you do the most?)

- ◯ I am a motorcycle passenger.
- ◯ I am a motorcycle rider.

2. Where do you live?

- ◯ United Kingdom
- ◯ Canada
- ◯ United States
- ◯ Australia
- ◯ Other (please specify)

3. What is your race? Please choose one or more.

- ☐ White
- ☐ Black or African-American
- ☐ Asian
- ☐ Native Hawaiian or other Pacific Islander
- ☐ American Indian or Alaska Native
- ☐ Other

4. Which category below includes your age?

- ◯ 18 to 25
- ◯ 26 to 40
- ◯ 41 to 55
- ◯ 56 to 62
- ◯ 63 to 70
- ◯ Over 70

5. At what age did you take your FIRST ride as a passenger?

- ◯ never a passenger
- ◯ Under 14 years
- ◯ 14 to 17 years
- ◯ 18 to 24 years
- ◯ 25 to 34 years
- ◯ 35 to 44 years
- ◯ 45 to 54 years
- ◯ 55 to 64 years
- ◯ 65 to 74 years
- ◯ 75 years and over

6. What is the highest level of school you have completed or the highest degree you have received?

- ◯ Less than high school degree
- ◯ High school degree or equivalent (e.g., GED)
- ◯ Some college but no degree
- ◯ Associate degree
- ◯ Bachelor degree
- ◯ Graduate degree

7. Which of the following best describes your current occupation?

- ◯ Management
- ◯ Business and Financial Operations
- ◯ Computer and Mathematical Occupations
- ◯ Architecture and Engineering
- ◯ Life, Physical, and Social Science Occupations
- ◯ Community and Social Service
- ◯ Legal Occupations
- ◯ Education, Training, and Library
- ◯ Arts, Design, Entertainment, Sports, and Media
- ◯ Healthcare Practitioners and Technical Occupations
- ◯ Healthcare Support
- ◯ Protective Service
- ◯ Food Preparation and Serving
- ◯ Building and Grounds Cleaning and Maintenance
- ◯ Personal Care and Service Occupations
- ◯ Sales and Related Occupations
- ◯ Office and Administrative Support
- ◯ Farming, Fishing, and Forestry
- ◯ Construction and Extraction Occupations
- ◯ Installation, Maintenance, and Repair
- ◯ Production Occupations
- ◯ Transportation and Materials Moving
- ◯ Other (please specify)

_____

8. What is your approximate average household income?

- ◯ $0-$24,999
- ◯ $25,000-$49,999
- ◯ $50,000-$74,999
- ◯ $75,000-$99,999
- ◯ $100,000-$124,999
- ◯ $125,000-$149,999
- ◯ $150,000-$174,999
- ◯ $175,000-$199,999
- ◯ $200,000 and up

9. Which of the following categories best describes your employment status?

- ◯ Retired
- ◯ Not employed, looking for work
- ◯ Employed, working 1-39 hours per week
- ◯ Not employed, NOT looking for work
- ◯ Self-employed
- ◯ Employed, working 40 or more hours per week
- ◯ Disabled, not able to work

10. What was your relationship with the person who took you for your FIRST motorcycle ride?

- ◯ Never a passenger
- ◯ Boyfriend
- ◯ Girlfriend
- ◯ Spouse
- ◯ Friend (male)
- ◯ Friend (female)
- ◯ Mother
- ◯ Father
- ◯ Grandmother
- ◯ Grandfather
- ◯ Brother
- ◯ Sister
- ◯ Uncle
- ◯ Aunt
- ◯ Cousin (male)
- ◯ Cousin (female)
- ◯ Neighbor (male)
- ◯ Neighbor (female)
- ◯ Other (please specify)

11. What is your RELATIONSHIP with the person you currently or most recently rode with as a PASSENGER?

- ◯ Never a passenger
- ◯ Boyfriend
- ◯ Girlfriend
- ◯ Spouse
- ◯ Friend (male)
- ◯ Friend (female)
- ◯ Mother
- ◯ Father
- ◯ Grandmother
- ◯ Grandfather
- ◯ Brother
- ◯ Sister
- ◯ Uncle
- ◯ Aunt
- ◯ Cousin (male)
- ◯ Cousin (female)
- ◯ Neighbor (male)
- ◯ Neighbor (female)
- ◯ Other (please specify)

12. What is the MOST RECENT or last time that you were a PASSENGER?

- ◯ Never a passenger
- ◯ Less than one year ago
- ◯ One to three years ago
- ◯ Four to ten years ago
- ◯ Over 10 years ago

13. Last season, how many separate rides did you take as a PASSENGER from January through December?

- ◯ None
- ◯ 1 to 6 times
- ◯ 7 to 12 times
- ◯ 13 to 20 times
- ◯ 21 or more times

14. What type of motorcycle did you last ride as a PASSENGER?

- ◯ scooter
- ◯ cruiser
- ◯ sport bike
- ◯ sport touring
- ◯ standard
- ◯ dual sport
- ◯ trike
- ◯ custom
- ◯ don't know
- ◯ Other (please specify)

15. What brand of motorcycle do you own and/or ride the most?

- ◯ Harley-Davidson
- ◯ Can-Am
- ◯ Victory
- ◯ Kawasaki
- ◯ Honda
- ◯ Suzuki
- ◯ Yamaha
- ◯ KTM
- ◯ BMW
- ◯ Triumph
- ◯ Polaris
- ◯ Ducati
- ◯ Aprilia
- ◯ Moto Guzzi
- ◯ Custom-chopper
- ◯ Piaggio
- ◯ Don't know
- ◯ I ride multiple motorcycles
- ◯ Other (please specify)

16. Choose the one best answer that describes how often you wear each item when riding.

	ALWAYS	VERY OFTEN	OFTEN	OCCASIONALLY	RARELY	NEVER
Motorcycle gloves	◯	◯	◯	◯	◯	◯
Other gloves	◯	◯	◯	◯	◯	◯
No gloves of any kind	◯	◯	◯	◯	◯	◯
Long pants (not jeans)	◯	◯	◯	◯	◯	◯
Shorts/capris	◯	◯	◯	◯	◯	◯
Chaps	◯	◯	◯	◯	◯	◯
Motorcycle boots	◯	◯	◯	◯	◯	◯
Fashion boots	◯	◯	◯	◯	◯	◯
Sneakers	◯	◯	◯	◯	◯	◯
Sandals or flip flops	◯	◯	◯	◯	◯	◯
Sleeveless top (no jacket)	◯	◯	◯	◯	◯	◯
T-shirt (no jacket)	◯	◯	◯	◯	◯	◯
Long-sleeved blouse or shirt (no jacket)	◯	◯	◯	◯	◯	◯
Motorcycle leather jacket	◯	◯	◯	◯	◯	◯
Motorcycle textile jacket	◯	◯	◯	◯	◯	◯
Motorcycle goggles or sport glasses	◯	◯	◯	◯	◯	◯
Sunglasses	◯	◯	◯	◯	◯	◯
No eye wear of any kind	◯	◯	◯	◯	◯	◯

Other (please specify)

17. Describe your helmet use.

	never	rarely	occasionally	mostly	always
half-helmet	◯	◯	◯	◯	◯
3/4 helmet	◯	◯	◯	◯	◯
full-face helmet	◯	◯	◯	◯	◯
no helmet	◯	◯	◯	◯	◯

18. Have you ever felt afraid while riding?

◯ yes

◯ no

Explain why or why not.

Women Passenger and Rider Survey

If you have further comments, please contact Ginger Bucher at hsxm@iup.edu. You may also provide your contact information at the Women Motorcyclist Research Website.

If you wish to return to the Women Motorcyclist Research Website follow the link below. Otherwise, you may exit the survey now.

www.research.womenmotorcycling.org

APPENDIX F

Motorcycling Data

Table 16

Summary for 2008 and 2012

	2008	2012[1]	Increase or (Decrease)	Source
Motorcycle Operators	25 million	27 million	8.0 %	MIC Owner Survey (2008, 2012) (FHWA, 2014)
Registered Motorcycles	7.7 million	8.4 million	9.1%	
Women Operators Total	5.7 million	6.7 million	17.5%	
Percentage of Women Operators	23%	25%	8.7%	MIC Owner Survey (2008, 2012)
Women that Own Motorcycles	12.3%	12.5%[2]	1.6%	
Injured Women Motorcyclists (including passengers)	15,000	13,000	(2.0%)	(NHTSA, 2008), Table 68, p.104
Count of Fatalities (All)	5,312	4,957	(6.7%)	
Fatalities (Women Operators)	423	166	(60.7%)	(NHTSA, 2012), Table 68, p.118
Fatalities (Women Passengers)	328[3]	290[4]	(11.6%)	

[1]The online magazine *Women Riders Now* posted the 2012 results for Motorcycle Industry Council's (MIC) Owner Survey that were available only to MIC members. In 2008 MIC issued a press release with the results. Both sources are included in the reference section.

[2] MIC Press Release of May 21, 2009 reported 12.3% women owned motorcycles (MIC, 2009); *WRN* reported that in 2009 women owned 10.5% of all US motorcycles (Women Riders Now, 2014).

[3] In 2008, 470 passengers were killed in motorcycle crashes.

[4] In 2012, 322 passengers were killed in motorcycle crashes. Eighty-nine percent were women. Seven percent of all motorcycle fatalities were passengers (NCSA, 2014).

APPENDIX G

Research Methods

Table 17

Key Studies 1997 - 2012

Study	Method	Passenger Focus	Subjects	Theory/Framework	Discipline
Haworth, Smith, Brumen, & Pronk (1997)	Mixed Methods	Crash factors	Pillions	Risk countermeasures	Traffic Safety
Joans (2001)	Qualitative Methods	Harley-Davidson subculture	Women passengers	Culture, lifestyle, and rites of passage	Anthropology
Martin, Schouten & McAlexander (2006)	Qualitative Methods	Harley-Davidson subculture	Women riders	Feminist theory	Consumer Science
Tunnicliff, Watson, White, Lewis, & Wishart (2011)	Qualitative Methods	Riders' views of passengers	Riders	Theory of planned behavior, group, personal, and moral norms	Psychology Sociology
Thompson (2012)	Qualitative Methods	Middle-upper class	Passengers	Symbolic Interactionism	Sociology