

2016

Police Officer Perception of Wellness Programs

Ellen M. Chism
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Psychology Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Ellen Chism

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. James Herndon, Committee Chairperson, Psychology Faculty
Dr. John Schmidt, Committee Member, Psychology Faculty
Dr. Penny McNatt Devine, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2016

Abstract

Police Officer Perception of Wellness Programs

by

Ellen M. Chism

MA, University of Phoenix, 2011

BS, Kaplan University, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Forensic Psychology

Walden University

December 2016

Abstract

Police officer applicants need to be in top physical condition and must pass a physical ability test in order to be accepted into the police academy. However, many police departments do not require incumbent police officers to take such tests after passing the academy, even though the job requirements may not change. Research has documented the importance of police officer fitness and its applicability to their work. Separate studies have also shown the benefit of organizational wellness programs to employees. There is a gap in the literature, however, regarding police officer perceptions of physical fitness as it relates to police work and about department provided wellness programs. The purpose of this study was to understand what concerns police officers have about health and job performance and to determine how important they believe wellness programs are in aiding them to remain in proper physical condition. This study referred to the theory of planned behavior to understand the behavior of police officers regarding fitness. This phenomenological study used 20 personal interviews of suburban Illinois police officers that were inductively coded and analyzed for emergent themes. The key findings revealed that police officers felt a need for police departments to implement policies regarding physical fitness standards throughout all stages of their careers. The results revealed a need to provide more education so the officers can make better informed decisions regarding their fitness. Positive social change may result if police officers recognize the need for health and fitness and understand how being fit could prepare them for greater usefulness in serving the community, thereby leading to a reduction of injuries, medical claims, and early retirement.

Police Officer Perception of Wellness Programs

by

Ellen M. Chism

MA, University of Phoenix, 2011

BS, Kaplan University, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Forensic Psychology

Walden University

December 2016

Dedication

To my husband, Scott, and family for understanding the long hours of schoolwork, short hours of family time, and long bouts of absence needed to complete my dissertation.

To my Dissertation Buddy, Keith, who read and re-read my work in order to provide a different perspective and assistance.

To all my friends and coworkers at the Rolling Meadows Police Department who supported me and encouraged my decision to obtain a PhD. In particular, to Scott, for all his extra hours of assistance and support.

To all my friends that have been there to support me through this... Thank you.

Acknowledgments

I would like to thank and offer my sincere appreciation to Dr. James Herndon and Dr. John Schmidt for agreeing to be my mentors throughout this dissertation journey. I cannot express enough my appreciation for the time they spent working with me to take on this challenge and complete the dissertation.

Table of Contents

List of Tables	iv
Chapter 1: Introduction to the Study.....	1
Background of the Study	2
Problem Statement	5
Purpose of the Study	7
Research Questions.....	7
Theoretical Foundation	8
Nature of the Study	9
Definitions.....	9
Assumptions.....	10
Scope and Delimitations	11
Limitations	11
Significance of the Study	12
Summary and Transition.....	13
Chapter 2: Literature Review.....	15
Literature Search Strategy.....	16
Theory of Planned Behavior	17
Positive Effects of Healthy Eating	18
Applicability of Physical Ability Tests.....	26
Wellness Programs.....	31
Summary and Conclusions	38

Chapter 3: Research Method.....	40
Research Design and Rationale	40
Role of the Researcher	41
Methodology	42
Participant Selection Logic	42
Instrumentation	43
Procedures for Recruitment, Participation, and Data Collection.....	44
Data Analysis Plan.....	45
Issues of Trustworthiness.....	45
Credibility	45
Transferability.....	46
Dependability	46
Confirmability.....	47
Ethical Procedures	47
Summary	48
Chapter 4: Results	49
Research Setting.....	49
Demographics	50
Data Collection	51
Data Analysis	51
Evidence of Trustworthiness.....	52
Credibility	52

Transferability.....	52
Dependability.....	52
Confirmability.....	52
Study Results	53
Research Question 1	53
Research Question 2	57
Research Question 3	66
Summary.....	70
Chapter 5: Discussion, Conclusions, and Recommendations.....	71
Interpretation of Findings	71
Limitations of the Study.....	74
Recommendations.....	74
Implications.....	75
Conclusions.....	76
References.....	79
Appendix A: Interview Questions	86
Appendix B: Interview Protocol.....	87
Appendix C: Confidentiality Agreement for Research Participants.....	88
Appendix D: Letter of Cooperation	89
Appendix E: Recruitment Letter.....	90

List of Tables

Table 1. Research Studies of Importance:Positive Effects of Healthy Eating and Fitness	25
Table 2. Research Studies of Importance: Applicability of Physical Ability Tests.....	30
Table 3. Research Studies of Importance: Wellness Programs	38
Table 4. Participant Gender and Shift Assignment.....	50
Table 5. Research Question 1: Theme Output	57
Table 6. Research Question 2: Theme Output	66
Table 7. Research Question 3: Theme Output	69

Chapter 1: Introduction to the Study

“Police work has been characterized as long periods of devastating boredom punctuated by sporadic, relatively brief periods of utter terror” (Hess, Orthmann, & Cho, 2013, p. 499). A police officer’s day may consist of several hours of sedentary activity that, without warning, can turn into action (Rannals, 2014). Most police recruits will be required to take a physical ability test in order to be accepted into the police academy (Kriegsman, 2012). Unlike most police department certifications, such as defensive tactics, weapons, and legal updates that require annual recertification, this initial physical ability test will most likely be the last physical ability test taken throughout an officer’s career (Kriegsman, 2012).

This study examined police officer perceptions of the importance of wellness programs. Collingwood, Hoffman, and Smith (2004) reported that police officers are less fit than half of the U.S. population. It is also reported that those officers who do participate in regular physical fitness activities and follow proper nutrition guidelines report fewer injuries, and these injuries are reported to require less recovery time (International Association of Chiefs of Police, 2009). Studies have revealed the benefits of wellness programs. For example, Tanigoshi, Kontos, and Remley (2008) researched the effects of counseling on the well-being of police officers and found that counseling may be an important factor to increase overall wellness in police officers. Further, Briley, Montgomery, and Blewett, (1992) believed health could be increased by incorporating a wellness program that includes nutrition counseling, exercise training, and medical assessment. They found that these three factors resulted in a significant decrease of

weight and overall cholesterol levels of police officers (Briley et al., 1992). Also, Berry, Mirabito, and Baun (2010) believed employees who take advantage of wellness programs cost less to the company than those employees who did not participate in wellness programs. They sought to learn the return on investment of wellness programs, finding that the return on investment could be as high as 6 to 1 (Berry et al., 2010).

Despite the modicum of research that has been collected to date, the literature calls for continued research regarding police officer perceptions of these wellness programs and the benefits of physical fitness as it relates to police work (Guffey, Larson, & Lasley, 2015). For example, Guffey et al. (2015), proposed that further research involve the effects of an available nutritionist to police officers. Tanigoshi, Kontos, and Remley (2008) suggested that future research focus on the wellness of police officers.

Background of the Study

Several studies present the positive effects of healthy eating and physical fitness on general health and performance of police officers (Allen & Armstrong, 2006; Norvell & Belles, 1993; Shell, 2002; Swensen, Waseleski, & Hartl, 2008). Shell (2002) presented the idea that police officers exit the academy in optimal physical condition after participating in a rigorous training regimen. In addition to the academy, law enforcement agencies should be concerned with long-term health and wellness. In response to this concern, the Maryland Police Corps incorporated a scientific approach by hiring an ACSM certified fitness instructor to help prepare police officers for long-term healthy living (Shell, 2002). Swensen, Waseleski, and Hartl (2008) suggested that healthy eating and exercise have been shown to improve sleep regularity, stress resistance, and

increased tolerance. This study acknowledged the effects of shift work on physiological, psychological, and behavioral aspects of an officer. These stressors negatively affect attention and reaction time, cause an increase in unnecessary risk-taking, reduce efficiency, and cause increases in errors (Swensen, Waseleski, & Hartl, 2008). Norvell and Belles (1993) performed a study revealing the positive psychological benefits of incorporating circuit weight training into a fitness schedule. The results of this study revealed a significant increase in strength and cardiovascular fitness. Incorporating circuit weight training into a regular fitness regime showed an increase in mood and job satisfaction and a decrease in somatization, anxiety, depression, and hostility (Norvell and Belles, 1993). Allen and Armstrong (2006) researched the negative effects of work and family conflict on physical health. Their study sought to understand how work and family conflict affect an employee's health. It was determined that family interference with work led to less physical activity and eating food with a higher fat content (Allen & Armstrong, 2006).

A mixed methods study by Anderson, Plecas, and Segger (2001) was used to determine applicability of the Police Officer's Physical Ability Test (POPAT) to the actual physical requirements of general duty police officers. This study showed high applicability and recommended continuing such testing at intervals after the probationary period of the officer. Boyce, Jones, and Hiatt (1991) performed a study on the relationship between fitness and absenteeism of police officers. Although the study had mixed results, it led to further research on the effects of fitness and police performance. Collingwood et al. (2004) researched the underlying factors of physical fitness on the

performance of police officers as it relates to physical tasks performed. Strating, Bakker, Lemmink, and Groothoff (2010) looked to show the applicability of physical fitness tests for police officers. This study revealed a high level of applicability.

Three quantitative studies on the effectiveness of motivational interviewing of police officers and implementing fitness training into the academy were found that employed the pretest, intervention, posttest method, and used interviews in an attempt to gain the opinions of the participants with a goal of determining what worked for the individual (Anshel & Kang, 2008; Copay & Charles, 1998; Gotay, 2010). Gotay (2010) used this method to find an appropriate training intervention for college students preparing to apply as police officer applicants. Anshel and Kang (2008) performed a test using an intervention of motivational interviewing. Copay and Charles (1998) employed this technique of motivational interviewing in order to test the effectiveness on police officers in the academy. All studies showed considerable improvement in fitness after each intervention was implemented; however, there was no follow-up on the long term effectiveness on officer fitness.

Quigley (2008) and Illinois Law Enforcement Training and Standards Board (2014) both presented informational articles revealing the need for fitness tests and programs for police officers stating that the physical requirements for police officers allows for a need to determine physical ability of eligible police officer applicants. Three studies focused on the effect of such variables as personality, stress, risk factors, body composition, and physiological characteristics (Hogan, 1989; Ramey, Downing, Franke, Perkhoun, & Alasagherin, 2011; Spitler, Jones, Hawkins, & Dudka, 2014). A study by

Hogan (1989) related that personality characteristics such as competitiveness, perfectionism, optimism, and energy have a direct relation to physical fitness. Spitler et al. (2014) stated that there is an assumption that law enforcement officers are to be above average in physical attributes such as strength, speed, and overall health. Their study looked at body composition in conjunction with eating habits, exercise habits, smoking trends, and perceived stress. The results showed that police officers are average in relation to citizens (Spitler et al. (2014). Ramey et al. (2011) researched stress measures, risk factors, and inflammatory biomarkers in police officers. They determined that there is a significant relationship between negative measures of physiological variables and stress (Ramey et al., 2011).

Problem Statement

Police officer performance of critical job requirements is highly dependent upon physical fitness (Collingwood et al., 2004). These core requirements include running, climbing, jumping, lifting, carrying, pushing, and use of force (Quigley, 2008). A review of the literature revealed that optimal physical fitness is an important aspect of police work (Quigley, 2008). Despite the physical nature of some important components of being an effective police officer, as much as 90% of police work involves sedentary tasks such as report writing, driving, and interviews (Anderson et al., 2001). Unfortunately, long hours and shift work can contribute to unhealthy eating habits, lack of exercise, and lower fitness levels (Mroz, 2008).

Collingwood, et al (2004) reported police officers are less physically fit than half of the U.S. population. Mroz (2008) stressed that a lack of optimal fitness in a police

officer can lead to injury and illness. For example, police officers suffering from heart disease make up 20-50% of early retirements and police officers with back problems account for 15-35% of early retirements, (Quigley, 2008). Consequently, police departments, such as those affiliated with the Illinois Law Enforcement Training and Standards Board (ILETSB), have established physical fitness standards (ILETSB, 2014). ILETSB recognizes that a certain level of fitness is required for police academy completion and successful job performance. Illinois requires that a police officer applicant pass a physical fitness test known as the Peace Officer Wellness Evaluation Report (POWER) Test (ILETSB, 2014).

Despite research showing most compensable injuries are suffered by unfit officers, very few U.S. police departments support implementing wellness programs (Quigley, 2008). The International Association of Chiefs of Police (IACP) recommends that police departments implement mandatory fitness programs. IACP (2009) conducted a study revealing that overweight officers experience more injuries leading to loss of work days and more time needed for rehabilitation. Officers who participate in regular exercise report fewer injuries and require less time to recover (IACP, 2009).

Police departments incorporating wellness programs have experienced reduced use of force cases, employee absenteeism, and worker's compensation claims, as well as an increase in overall officer fitness and productivity (Quigley, 2008). The estimated return on investment (ROI) in wellness programs is between two and five dollars for every dollar spent (Quigley, 2008). Further, police departments employing officers who maintain higher levels of overall fitness can be more confident in the officer's ability to

perform critical tasks (Ebling, 2002). That department can also reduce the financial obligations of health care costs due to early retirement, on-duty injuries, hiring new applicants, and training (Commission on Accreditation for Law Enforcement Agencies, 2010a). The researchable problem then, becomes one of understanding how officers feel about wellness programs, and why they do or do not take part in these programs.

Purpose of the Study

The purpose of this qualitative, phenomenological study was twofold, to examine: (a) police officer concern about health and job performance; and (b) how important police officers believe personal wellness programs are in aiding police officers to remain in optimal physical condition. In this study, I also examined whether the officers believe a department provided wellness program could aid officers with the continued adherence to a regular exercise schedule and nutrition recommendations.

Research Questions

The following research questions will be used to address the identified gap in the literature and to address the stated problem:

RQ1: What perceptions do police officers have about minimum physical fitness requirements and about maintaining them?

RQ2: How have the lived experiences of police officers affected their opinions of physical fitness requirements and physical ability testing?

RQ3: How do police officers feel about the implementation of a personal wellness program?

Theoretical Foundation

The theory of planned behavior (TPB), a cognitive behavioral approach introduced by Ajzen (2002), is the model used for this study. TPB explains behavior as it relates to intention and shows there are three factors for determining intention of behavior: (a) personal attitude of the individual, (b) subjective norms, and (c) perceived behavioral control (Ajzen, 2002). Personal attitude refers to the individual's perception of the consequences of behavior and how important the person perceives this behavior to be (Vallerand, Deshaies, Cuerrier, Pelletier, & Mongeau, 1992). Attitude refers to how serious the person considers the negative consequences of the behavior to be (Vallerand, et al, 1992). Subjective norms refer to what the individual believes others expect (Vallerand, et al, 1992). Perceived behavioral control is what the person perceives as either barriers or ease of performing a particular action (Ajzen, 2002).

In this study, personal attitude refers to how important the police officer feels exercise and nutrition adherence is to his or her job performance. Attitude refers to how serious the officer considers the negative consequences of not adhering to a wellness program to be. Subjective norms refer to what a police department expects of each officer. This also depends upon how important the police officer perceives this expectation. Subjective norms can also refer to what the officer believes other officers expect of his or her fitness level. Perceived behavioral control is what the police officer perceives to be either a barrier or ease of performing the action of adhering to a wellness program.

Nature of the Study

The nature of this study is qualitative with a phenomenological perspective, which seeks to understand the meaning of experiences of a person or a group of persons (Patton, 2002). Data was collected through personal interviews in order to gain a better insight as to how police officers feel about the importance of physical fitness and the implementation of wellness programs.

Interviews were conducted at a suburban police department in the Chicago, IL area, which allowed for ease of data collection, accessibility to officers working different shifts, and cost savings. Participants had the option to change the specific location of the interviews if they felt restricted or uncomfortable being open with their answers. Through the interviews I ascertained what concerns police officers have regarding their own level of fitness as it relates to their job performance. These interviews contained information about why police officers may or may not abide by an exercise regimen. The interviews also focused on police officer opinions regarding department-provided wellness programs and fitness assessments. I used NVivo data analysis software to transcribe the data and break the data into themes. Inductive coding was used to find the themes as they related to the research questions (Frankfort-Nachmias & Nachmias, 2008).

Definitions

Defensive tactic: A performance tool to aid a police officer with arrest and restraint. This method is intended to protect both the police officer and the suspect (Lau, 2001).

Physical ability test: A physical fitness test distributed to police officers entering the academy. This test includes a sit and reach test to test flexibility, a one-minute sit-up test to test muscle endurance, a one-rep maximum bench press to test upper body strength, and a one and a half mile run to test cardio endurance (ILETSB, 2014).

Physical fitness: Three factors define the term physical fitness: cardiovascular endurance and aerobic capacity, strength, and flexibility. Cardiovascular endurance and aerobic capacity means the ability of the heart to pump blood to transfer oxygen. Strength refers to the ability of the muscles to generate force. Flexibility refers to the range of motion of the joints and muscles (ILETSB, 2014).

Police officer: A person hired by an agency to protect people and property. The duties of a police officer include patrolling areas, responding to emergency calls, enforcing laws, making arrests, issuing citations, testifying in court, making traffic stops, responding to domestic disturbances, and writing reports (Criminal Justice USA, 2015).

Wellness program: A comprehensive service provided by the department to promote health that includes implementing supportive programs and policies including access to diet, exercise, stress management, and illness prevention assistance (Wellness program, 2016).

Assumptions

It is believed that all participants were full-time patrol officers engaging in such activities as traffic control, traffic direction, emergency response calls, and other crime prevention activities. It is believed that each participant has a general idea of what his or

her health status is currently. It is also believed that all participants answered each interview question truthfully and completely.

Scope and Delimitations

This study focused on the eating and exercise habits of full-time police officers employed in a suburban police department in Illinois. This sample was chosen in order to represent the majority of Illinois suburban police departments. The delimitation of this study is that it may not accurately represent all suburban police departments in Illinois. This study may not represent other departments due to different ethnic, age, and gender population make-up. It also does not include consideration of all department provisions regarding fitness and nutrition training.

Limitations

One limitation to this study is bias. Bias can occur in the form of interviewer bias or participant bias. It is understood that the participant understands that it is necessary to be in good physical condition in order to be accepted as an entry level police officer. The participant may feel that answers reinforcing the positive opinion of fitness are desired. This feeling may have led participants to answer in such a manner not completely reflective of their actual opinion. In order to reduce the chance of this type of bias, I ensured all questions were open-ended and not leading. Open-ended questions allowed for participants to explain their reasoning for an answer that he or she felt may not be favorable. Researcher bias was reduced by establishing an interview protocol that was followed precisely for each interview conducted. This protocol dictated how to ask the questions and how to record the data.

The chosen location of the interviews may be a second limitation. Conducting interviews in an interview room inside the police department may have caused the participant to feel restricted. The participant had the opportunity to choose to meet at a different, more neutral location. This request was to be accommodated by moving to a quiet secure location of the participant's choosing.

Significance of the Study

Guffey et al. (2015) indicated that weight, age, and years on the job have a direct relation to injury. These researchers also relate that aerobic exercise can have a positive relation to weight, in turn having a positive effect on reducing injury in police officers. Fitness also improved mood by decreasing anxiety, depression, and hostility (Norvell & Belles, 1993). Nabeel, Baker, McGrail, and Flottemesch (2007) showed a negative relationship exists between physical activity, fitness, and musculoskeletal injuries among police officers. Leal (2006) found that police officers agreed that physical fitness is an important aspect of a job that could enhance the ability to handle violent encounters as well as counter the negative effects of sedentary hours in a squad car. Norvelle and Belles (1993) suggested that further research study the effects of training on police officers using alternative control conditions.

This study researched the reasons police officers either adhere to or do not adhere to a personal wellness regime. It also researched police officer opinion regarding the importance of department provided wellness programs. The findings of this research could result in policies requiring the implementation of training programs providing police officers at all age and experience levels the knowledge to develop and maintain an

effective individual wellness program. This study could lead to further studies regarding the importance of implementing wellness programs and fitness evaluations for police officers. It could further lead to the acceptance of department policies implementing such programs.

Summary and Transition

Society relies on police officers to come to their aid in life threatening situations. It is a general belief that people need to be in peak physical condition in order to pass the police academy. This belief is enforced by the fact that most police departments require applicants to pass a standardized physical ability test in order to be accepted as a police officer. Job requirements such as chasing suspects on foot, apprehending resisting offenders, dragging people from vehicles, and jumping fences further enforce this need to maintain top physical ability.

When a person makes the decision to become a police officer, these requirements are understood. It is also understood that these requirements do not change or decrease as officers gets further into their careers. However, as pointed out by Collingwood et al. (2004), police officers are less fit than half of the U.S. population. It was also noted that early retirements of police officers are often due to back problems or heart disease, incidents of which can be reduced with proper exercise and nutrition (Collingwood, et. al., 2004).

The background information presented reveals the importance of fitness as it relates to health and performance. It also provides several sources enforcing the requirement of physical fitness abilities of police officers. Wellness programs have been

shown to provide several benefits to both the individual and the company choosing to provide such a service to its employees. The gap in the literature is found when looking to gather information regarding how police officers feel about the importance of fitness after the police academy. The studies reviewed suggest that further research involve the effects of a nutritionist being available to police officers. The wellness and counseling needs of police officers also require further study. The reasons police officers fail to maintain higher levels of fitness is not adequately addressed in the literature provided. Understanding these reasons could lead to better provisions on behalf of the police departments. During the police academy, each recruit is told what to do in order to pass. It is not understood what the police officer needs after the academy in order to maintain physical ability.

The subsequent chapters review previous research on the positive effects of healthy eating and fitness, the applicability of physical ability tests, and wellness programs. They will also present the methodology and data collection procedures that were used for this study.

Chapter 2: Literature Review

This study was initiated to examine police officer adherence to a personal fitness program, to determine police officer concerns for fitness as it relates to job performance, and to understand the extent to which police officers feel a department-provided wellness program would encourage better adherence to personal fitness. Collingwood et al. (2004) reported that police officers are less physically fit than half of the U.S. population. Mroz (2008) informs us that a lack of optimal fitness in a police officer can lead to injury and illness. Quigley (2008) supported this statement by providing statistics referencing early police officer retirements due to back problems and heart disease.

Numerous articles provide information regarding physical fitness as it relates to health and disease in police officers (Allen and Armstrong, 2006; Hogan, 1989; Nabeel et al., 2007; Ramey et al., 2011; Rannals, 2014). Researchers have provided articles and studies showing the importance of police officer physical fitness and the applicability of physical ability testing (Mroz, 2008; Quigley, 2008; Chapola, 2002; Collingwood, Hoffman, and Smith, 2003; Commission on Accreditation for Law Enforcement Agencies, 2010; Bissett, Bissett, and Snell, 2012; Gotay, 2010; Guffey et al., 2015; Kriegman, 2012; Leal, 2006). Physical fitness is important not only to prevent illness, disease, and injury, but also to improve daily job performance (Mroz, 2008). Studies have also been conducted regarding the effectiveness of department provided fitness programs (Anshel and Kang, 2008; Berry et al., 2010; Briley et al., 1992; Tanigoshi et al., 2008). Collectively, these studies reveal a need for continued research regarding police officer opinion of fitness in regard to their job performance and the need for police agencies to

provide wellness programs. This literature review will also provide encouraging results from studies researching the implementation and effects of wellness programs.

Literature Search Strategy

Internet college libraries, internet databases, and search engines were used in order to collect current literature addressing the necessity of police officer fitness. Walden University Library, Google Scholar, and Google were used to access the scholarly databases of ProQuest, EBSCO, and Academic Premier. The internet search engine Google was also used to access *Police Chief* magazine archives and further references.

This search yielded academic journals and articles, books, research studies, and informational documents based on the following key terms: *diet and disease, fitness and disease, police officers and diet and disease, police officer and fitness and disease, police officer and fitness related death, police officer and diet, police officer and fitness and productivity, police officer and opinion and wellness program, effectiveness and wellness program, and benefits and wellness program.*

The original time frame for this search was 2010 to present. This time frame resulted in very few studies with these key terms. The time frame was expanded, and the results are grouped into three categories: (a) positive effects of healthy eating and fitness on the health and performance of police officers, (b) the applicability of police physical ability tests, and (c) wellness programs. Included in this literature review are research articles that predate the year 2000. These articles provide both a historical and conceptual context in regard to this research study.

Theory of Planned Behavior

TPB is the theoretical foundation of this study, and it is a cognitive behavioral approach introduced by Ajzen in 1988. It is an extension of the theory of reasoned action proposed by Ajzen and Fischbein. The theory of reasoned action relies on three conditions that determine a relationship between intention and behavior: (a) to what extent does the intention of behavior relate to the specific result, (b) “stability of intentions between time of measurement and performance of the behavior,” and (c) perceived behavioral control (Ajzen, 2002). Ajzen added the variable of perceived behavioral control to the theory of reasoned action and named this TPB (Smith & Biddle, 1999). This variable of perceived behavioral control refers to the perceived ease or difficulty of actually performing the behavior (Smith & Biddle, 1999). This perception can be the result of past experience or anticipated obstacles. The implementation of this variable implies that exercise may be restricted by more than just an individual’s decision to exercise (Smith & Biddle, 1999).

Ajzen (2002) explained in this theory that behavior relates to intention and asserts there are three factors for determining intention of behavior: (a) personal attitude of the individual, (b) subjective norms, and (c) perceived behavioral control. Personal attitude refers to the individual’s perception of the consequences of behavior and how important the person perceives this behavior (Vallerand et al., 1992). Attitude refers to how serious the person considers the negative consequences of the behavior (Vallerand et al., 1992). Subjective norms refer to what the individual believes others expect (Vallerand et al.,

1992). Perceived behavioral control is what the person perceives as either barriers or ease of performing a particular action (Ajzen, 2002).

Positive Effects of Healthy Eating

In a study conducted by Guffey et al. (2015), the researchers point out that military personnel are expected to maintain high levels of fitness performance. In an effort to ensure this standard is kept, fitness is incorporated into a daily regimen. This is not the case for police officers and fire fighters. They are expected to rely on self-motivation. In the literature review presented by Guffey et al. (2015), it was noted that there had not been a similar study done since 2007. These researchers studied full-time, sworn law enforcement officers working in patrol by having them fill out a questionnaire regarding fitness, diet, and lifestyle, on duty injury, injury leave, and sick leave over a five year period. It was hypothesized that there is an indirect relationship between aerobic exercise and injury, and that diet indirectly relates to injury in that less weight relates to fewer injuries (Guffey et al., 2015). The results of this study revealed that aerobic exercise has a relation to weight, and that weight has a correlation to injury. It was also determined that age and years on the job also relate to injury (Guffey et al., 2015).

Nabeel et al. (2007) conducted a study to determine the correlation between physical activity, fitness, and musculoskeletal injuries in police officers. Police officers are at greater risk for lower back pain, musculoskeletal injuries, cardiovascular disease, and obesity. These researchers set out to determine whether officers with greater fitness have fewer injuries than those officers who are not fit. This study incorporated a cross-sectional survey issued to active duty officers at the Minneapolis Police Department. The

survey asked questions related to physical fitness, activity levels, and prevalence of work related and non-work related injuries in a twelve year period. The results of this study revealed that the higher the fitness level, the lower the prevalence of musculoskeletal injuries and chronic back pain. Officers with the highest levels of fitness had less reported back pain and less chronic back pain than those officers reporting to be less physically fit. Fitness levels are a predictor of sprains, back pain, and chronic pain (Nabeel et al., 2007).

Krainik (2003) noted that in 2002, the Chicago Police Department began a yearly opportunity for officers to take a physical ability test on a volunteer basis. Passing this test meant the officer received a \$250 bonus. In 2001, when the bonus was a pin and complimentary letter, 200 officers participated (Krainik, 2003). When the \$250 bonus was incorporated in 2002, two thousand officers participated with a 98% pass rate (Krainik, 2003). This indicates a 10 times increase from just relying on self-motivation. Krainik (2003) also pointed out that health care costs for overweight officers increases. According to the American Heart Association, approximately 157 million Americans are overweight or obese (American Heart Association, 2013). Poor diet and obesity lead to cardiovascular disease, high blood pressure, coronary artery disease, and diabetes. An increase in physical fitness can lead to less stress, better job performance, and a better public image (Krainik, 2003).

Chapola (2002) provided information supporting the ideas presented by Krainik about how citizens could have a negative bias towards an officer who does not appear fit and capable. An officer's appearance could positively or negatively affect a citizen's

perception of the capability of a police officer (Chapola, 2002). An officer carrying excessive weight could face a risk of joint problems, hypertension, diabetes, gall stones, heart disease, some cancers, and cardio respiratory problems. In addition to health concerns, the officer who is overweight may be compromising his or her speed and ability. A nutritional diet that leads to a normal weight can counteract these concerns. A healthy, physically fit officer will also have more muscle strength, endurance, and better cardio health (Chapola, 2002).

Quigley (2008) figured that a lack of fitness can lead to on-duty injuries, illness, greater chance of exposure to liability, and loss of respect from the public. According to statistics revealed in a study conducted by The Cooper Institute for Aerobics Research between the years of 1983 to 1993, officer fitness levels are below average in the areas of aerobic fitness, body fat percentage, and abdominal strength. Officers are average in upper body strength and lower body flexibility. Overall, this study shows that officers are less fit than one half of the U.S. citizens (Quigley, 2008). These less than average fitness levels lead to a greater morbidity and mortality rate than the general public. This status can exacerbate job related stress and has shown to lead to an annual increase of cardiovascular disease, colon cancer, and suicide (Quigley, 2008).

Fitness has a direct impact on job performance (Quigley, 2008). There are core tasks that officers need to be able to perform such as running, climbing, jumping, lifting, carrying, dragging, pushing, and use of force (Quigley, 2008). Statistics show that only 20% of the workforce is responsible for 80% of accidents reported. It is a small percentage that is responsible for most compensable injuries. An in-service heart attack

can cost between \$400,000 and \$700,000. Early disability for an officer can equal 165% of the officer's annual salary (Quigley, 2008). The benefits to having physically fit officers are immeasurable. Fit officers will display improved performance, reduced stress, better physical and psychological preparation, and be less likely to be injured. This reduction in injury, in turn, leads to less payouts of disability, insurance premiums, and cost related to training new employees (Quigley, 2008).

The ILETSB recognizes that officers have a known risk of cardiovascular disease, lower back disorders, and obesity. The training board has stated that fitness is necessary for officers to be prepared to perform critical tasks required of them at any given time of any day throughout their career (ILETSB, 2014). ILETSB established a physical ability test known as the POWER test that is required of all police cadets entering the academy. Physical fitness improves job performance, decreases sick time used, reduces liability, and increases trainability and academy performance (ILETSB, 2014).

Collingwood et al. (2003) make note that although critical physical requirements of police work are infrequent, those requirements demand fitness to be effective. Collingwood et al. (2003), argue that physical fitness testing and training should be treated as any other regular police officer training such as firearms training and use of force. Data from validation studies show that fitness tests are applicable as they relate to performing physical tasks. Ninety-five percent of officers asked agreed that they were either expected to perform critical tasks or had actually performed them. Some of these tasks were pursuits, pushing a car, and dragging a body (Collingwood et al., 2003). Job task analyses and critical incident reports show that it is necessary to perform critical

tasks even though they may be infrequent. These studies show that fitness is directly related to job performance (Collingwood et al., 2003).

Mroz (2008) questioned the idea of having to pass a fitness ability test to be accepted at the academy but then having no continued fitness requirements for most police departments. In his informational article on career physical fitness standards, Mroz (2008) pointed out the pros and cons of fitness ability for law enforcement officers. One pro is that being in optimum physical shape can prepare the officer for a physical conflict, which is most likely to happen while making an arrest. Officers in good physical shape can avoid embarrassment. Police officers are considered role models. Out of shape officers are a danger to themselves in that they have a higher risk of cardio-respiratory attacks. They are a danger to others in that they are less reliable as back up officers (Mroz, 2008).

One perceived negative aspect of remaining in good physical shape is that much of police work is not physical. If an officer is genetically susceptible to weight gain, the officer would have to abide by a restricted diet compared to naturally thin officers. Eating properly is difficult in police work due to the hours and unpredictability of meal breaks (Mroz, 2008). Some reasons provided by officers for not staying in shape are complacency and laziness, unions, and lack of free time. Some issues pointed out for implementing fitness standards are legal issues, the presence of incentives, availability of weight rooms, and time provided for working out during shift hours (Mroz, 2008).

A 2011 study conducted by Lagestad searched for the importance of physical fitness in police officers even with studies showing mixed results on the frequency of

force used in police work. Lagestad (2011) suggests that mixed results on the frequency of physical encounters may be due to the fact that the term “physical” is described differently in different areas of the world. As an example, Norwegian police describe physical force as the act of taking a suspect to the ground.

In the U.S., force is described as anything that involves physical contact with a suspect, including placing handcuffs on a compliant individual. Lagestad (2011) conducted a mixed methods study involving a questionnaire, interviews, and observation of police officers during routine shiftwork. The participants for this study were police students in Norway who are required to go through three years of training. The first year is considered academy training. The second year of training is assignment to patrol. During their second year of training, 12 police students were chosen to be observed and interviewed while on patrol. The focus for this phase of the study was to determine the significance of certain activities as they related to police work. At the end of the three year training period, the officers were asked to complete a survey. The survey asked questions regarding why each officer exercises and what goals each officer had in regard to physical training. The survey also focused on how significant exercise was to police work and where exercise falls on the scale of priorities for the officer (Lagestad, 2011). The results of this study indicated that police students place a high level of importance on physical fitness as it relates to being a police officer. Even though physical encounters may be rare, the students felt that regular exercise prepared them for those rare occurrences. This created a confidence in the officer, which in turn can instill confidence

in the public. Regular participation in physical activity had been reported by the students to reduce stress and better enable the officer to deal with stressful situations.

Table 1 presents a summary of articles describing positive effects of healthy eating and fitness. It provides a side by side comparison of method, sample, and findings of each study presented.

Table 1

Research Studies of Importance: Positive Effects of Healthy Eating and Fitness

Authors/year	Method	Sample	Findings
Guffey, Larson, and Lasley (2015)	Questionnaire	Full time, sworn police officers working in patrol in 7 California police departments and 1 Houston area police department	There is indirect support of a correlation between a fitness regimen and reduction of on-duty injuries. There is a direct correlation between exercise and weight: more aerobic exercise leads to less weight. Overweight officers are more likely to be injured on duty. There is indirect support of a correlation between weight and injury.
Nabeel, Baker, McGrail, and Flottemesch (2007)	Cross-sectional survey	650 police officers working in patrol for the Minneapolis Police Department	Officers who reported higher levels of fitness reported fewer instances of sprains, back pain, and chronic pain.
Krainik (2003)		Chicago Police Department patrol officers	Higher fitness levels lead to less stress, better job performance, better public image, and lower health care costs
Chapola (2002)		Police officers	Nutritional balance can lead to counteraction of negative health concerns
Quigley (2008)		Police officers	Officers fitness levels below average

(Table continues)

Authors/year	Method	Sample	Findings
ILETSB (2014)		Police officers	There is a need for fitness evaluation of police officers to ensure the ability to endure the physical and academic demands of the academy.
Collingwood, Hoffman, and Smith (2003)		Police officers	Fitness directly related to job performance. A certain level of fitness is needed to ensure the officer can perform the infrequent but critical tasks of a patrol officer
Mroz (2008)		Police officers	Pros and cons of fitness ability throughout police career, explanation of why it is difficult for police officers to stay fit, and how police can get help getting fit.
Lagestad (2011)		Police officers	Student opinion is that regular physical activity reduces stress and prepares officers for stressful situations

Applicability of Physical Ability Tests

Physical ability tests are used by most police agencies (Bissett et al., 2012). The problems these agencies are having with these types of tests are that they are sometimes being shown not to be related to the actual requirements of the job, and that they can negatively affect female applicants (Bissett, et al., 2012). Original physical ability testing eliminated applicants who did not fit into a specific height and weight category. It was the belief that a certain statured person would be able to effectively handle the physical demands of being a police officer. It was finally decided by the U.S. Supreme Court in the case of *Dothard v. Rawlinson* (1977) that this was not a valid form for testing strength

or ability (Bissett et al., 2012). In order for a test to be considered valid, it needs to be job related, predict future success on the job, and not have a less discriminatory alternative.

Bissett et al., (2012) conducted research seeking to understand how important incumbent police officers feel physical ability testing and minimum physical fitness requirements are to police work. This study examined how incumbent officers rated specific job tasks and the self- reported ability of the officer to perform each of these tasks. The officers were asked to rank physical ability in comparison to other police competencies. Finally, the researchers wanted to understand the differences in feelings by gender concerning physical ability (Bissett, et al., 2012).

Bissett et al. (2012) reached out to agencies in the Greater Houston metropolitan area. It was not a random sample. However, the researchers felt that the 8 departments used were a fair representation of all size departments. The survey used presented questions regarding importance of physical ability, importance of specific physical abilities, and a self- report of each officer's own abilities to perform each of these tasks. The surveys used 5-point Likert type scales to analyze the data (Bissett et al., 2012). Most officers surveyed believed that physical ability testing is important. Officers felt differently when discussing specific tasks in that they felt them to be less important. Mandatory testing is not something with which most officers agreed. In fact, 27% readily admitted that they could not pass this type of test (Bissett, et al., 2012). Even though the results indicate that most police officers believe physical ability is important, they also stated that tasks requiring this ability are very seldom performed, if ever at all. Finally, female participants were more likely to view interpersonal skills, situational reasoning,

initiative, and physical fitness and physical ability as critically important to police work (Bissett, et al., 2012).

Anderson, Pleccas, and Segger (2001) conducted a study in order to determine the occupational requirements of general duty police work. These researchers set out to revalidate the Police Officer Physical Abilities Test (POPAT). In their study, 267 general duty police officers were surveyed about their average duties and their most critically demanding duties. In addition to the surveys, every second officer was observed for a ten hour shift. This observation focused on all physical activity and movement patterns on a minute by minute basis. Based on these observations and the data collected from the surveys, it was determined that core requirements of general duty police officers include walking, climbing stairs, manipulating objects, twisting, turning, pulling, pushing, running, bending, squatting, kneeling, lifting, carrying, and taking physical control of suspects (Anderson, et al., 2001).

A physical abilities test that is appropriate would simulate the actions of getting to the problem, controlling the problem, and removing the problem. It is necessary for police officers to be safe and secure in accomplishing these tasks. The POPAT is a physical abilities test that does incorporate such tasks as running, jumping, crawling, and dragging. These researchers were successful in determining that the POPAT is job specific for general duty police officers (Anderson, et al., 2001). It was also revealed that some results of not being prepared for such critical tasks are injury, long term disability, employee turnover, poor productivity, cost at the human level, and cost at the economic level (Anderson, et al., 2001).

In order for a police agency to employ a physical ability test, it has to fit The Uniform Guidelines for Employee Selection Test, which means the test has to be job specific and consistent with business necessity (Collingwood, Hoffman & Smith, 2004). Collingwood et al., (2004) set out to determine whether physical fitness is necessary for safe and effective performance of police officer job functions. Data was collected from a fifteen- year period and included 34 physical performance validation studies. These tests included over 5500 officers working for 74 different federal, state, and local police agencies (Collingwood, et al., 2004). The information revealed from the collection of these studies determines which areas are necessary for officers to effectively and safely perform expected physical tasks:

- Aerobic power (1.5 mile run)
- Anaerobic power (300 meter run)
- Upper body absolute strength (1 repetition bench press)
- Upper body muscular endurance (push up)
- Abdominal muscular endurance (one-minute sit-up)
- Explosive leg power (vertical jump)
- Ability (Illinois ability run)

The results from each study were in agreement when determining that these factors were predictive of success in physical tasks.

Even though studies show that physical ability testing is applicable to police officer performance, there are several impedances to implementing and maintaining a physical ability test (Bissett et al., 2012). A suggested alternative to physical ability

testing, as suggested by Bissett et al., (2012) is to employ assessment centers to test potential officers by presenting situational exercises. These scenario based exercises test ability to deal with subjects, emotional stability under stress, ability to work in a team, communicate, and use appropriate level of force (Bissett et al., 2012).

Table 2 presents a summary of articles describing the applicability of physical ability tests. It provides a side by side comparison of the method, sample, and findings of each study presented.

Table 2

Research Studies of Importance: Applicability of Physical Ability Tests

Authors/year	Method	Sample	Findings
Bissett, Bissett, and Snell (2012)	Self-administered 58 item survey	250 police officers from 8 Houston area Police departments	The majority of police officers support physical ability testing of new officers. 27% of officers surveyed admit to not being able to pass such a test and argue the applicability of some test areas
Anderson, Pleccas, and Segger (2001)	Mixed methods - survey/observation	267 general duty police officers from 11 municipalities in British Columbia	A review of the POPAT indicates the tasks encountered in this ability test do relate to job requirements
Collingwood, Hoffman, and Smith (2004)	Quantitative- 15 year data collection	5500 federal, state, and local police officers representing 75 agencies	Data collected show that physical ability tests are job related and have a business necessity

Wellness Programs

While researching information regarding police officer physical fitness, several studies were found on wellness programs and their effectiveness within the workplace. In response to a low number of studies regarding wellness programs and police officers, Tanigoshi, Kontos, and Remley Jr. (2008) conducted a study in order to gain an understanding of whether wellness counseling can increase well-being in police officers. These researchers recognized that law enforcement is one of the most dangerous, stressful, and health threatening careers. Police officer duties present dangers to the psychological, emotional, physical, spiritual, and social self (Tanigoshi, Kontos, & Remley Jr., 2008). Tanigoshi et al., (2008) present readers with an extensive list of risks posed to law enforcement officers such as suicide, alcohol and drug addiction, depression, anxiety, stress, divorce, post-traumatic stress symptoms, domestic violence, cardiovascular disease, cancer, diabetes, obesity, ulcers, cirrhosis, and chronic lower back pain. In addition to the risks mentioned, an unhealthy lifestyle consisting of poor fitness and nutrition and exercise habits, sedentary lifestyle, and irregular sleep lead to premature death.

Tanigoshi et al. (2008) conducted a pre-test, treatment, post-test study involving 60 Louisiana police officers. Thirty officers were assigned to a control group, and thirty officers were assigned to a treatment group (Tanigoshi et al. (2008). Each participant completed three questionnaires: 5F Wellness Self Report Inventory to assess total wellness, Style Item Self-Evaluation Scale to assess self-efficacy, and a Stage of Wellness questionnaire to assess willingness to change (Tanigoshi et al., 2008). The

treatment group was assigned a counselor to discuss wellness throughout five sessions. Each session consisted of a cognitive behavioral treatment focusing on treatment goals and establishing a personal wellness program. At the end of the study, all officers retook all three measures and provided reflections of their experience. There was a significant difference between the pre-test and post-test of the treatment group. This study showed that counselors positively affected wellness of police officers (Tanigoshi et al., 2008).

Briley et al. (1992) believed that wellness programs can increase health by improving nutrition and fitness through nutrition counseling, exercise, and medical assessment. Their study involved the incorporation of a nutrition program into an already existing wellness program. Police officers employed at the Austin, Texas Police Department were already afforded access to medical staff and two on-site fitness facilities. This study added access to a nutrition education program. The study consisted of a physical exam, stress test, health risk appraisal, blood chemistry check, and anthropometric measurements. The nutritional program consisted of six individual counseling sessions with a registered dietician and six group seminars that provided information regarding personal habits, how to keep a food diary, meal planning, cooking classes, nutrition, and disease (Briley, et. al., 1992). Of the forty police officers who agreed to participate in the program, twenty- eight completed the study. All subjects initially had a body weight above their suggested ideal weight limit. Overall, there was a significant decrease in weight and cholesterol levels indicating that a wellness program including nutrition, health counseling, and physical exams over time helps police officers

lose weight and lower cholesterol. As a result of this study, Austin Police Department incorporated health screenings into the existing wellness program.

It was the belief of researchers Berry, Mirabito, and Baun (2010) that healthy employees cost less than unhealthy employees. These researchers collected information from approximately 300 people. They conducted interviews at ten organizations already providing successful wellness programs provided their employees. Interviews were conducted with senior executives of wellness managers and staff, occupational health, employee assistance service, on-site medical clinics, fitness centers, safety, and food service. Focus groups were conducted with middle managers, employees who use the programs, and employees who chose not to use the programs (Berry, et al., 2010). At the conclusion of the study, data collected indicated that changes in behaviors such as smoking, physical inactivity, weight gain, and alcohol use led to lower occurrences of hypertension, lower cholesterol levels, and fewer cases of depression. These changes and positive effects further led to lower costs, greater productivity, and higher moral.

Within the three year period of 2007 through 2010, Anshel and Kang conducted three studies. The first study was an outcome-based action study on changes in fitness, blood lipids, and exercise adherence using the Disconnected Values Model (Anshel and Kang, 2007). The second study also focused on changes in fitness, blood lipids, and exercise adherence (Anshel and Kang, 2008). However, this study incorporated motivational interviewing. Finally, in 2010, they conducted a 10-week study examining the effects of an intervention employing the Disconnected Values model (Anshel and Kang, 2010).

Anshel and Kang (2007) address the misperception that people want to make changes in their blood lipids, exercise adherence, and fitness. The goal of this study was to provide incentive to replace unhealthy habits with healthy habits by acknowledging the personal cost and consequence versus the value of the change to the participants. Anshel and Kang (2007) present each participant with the long-term costs and consequences of not making healthy changes. If the participants do not feel that such consequences as reduced fitness, weight gain, higher stress, anxiety, poor physical and mental health, poor quality of life, and a shorter lifespan are unacceptable, they will not change their unhealthy behaviors. Fifty-one full time faculty and staff employed at a southeastern university participated in a 10-week intervention study involving a cognitive behavioral approach influenced by the Disconnected Values model (Anshel & Kang, 2007). Each participant was assigned a performance coach who reviewed with them an action plan, proper exercise and nutrition, discussed values, reviewed perceived and actual impedances to change, developed a strategy, and provided feedback. At the conclusion of this 10-week intervention study, fitness, blood lipids, and exercise adherence were measured for change. The results indicated that fitness improved in the areas of cardiovascular, strength, and body fat percentages. Lipid profiles revealed an improvement in blood cholesterol and triglycerides. Blood pressure and high-density lipoprotein cholesterol levels showed no measureable change (Anshel & Kang, 2007).

Anshel and Kang's second study conducted in 2008 also employed a 10-week intervention. This study focused on changes in fitness, blood lipids, and exercise adherence in police officers as a result of motivational interviewing. In this study, Anshel

and Kang (2008) recognized that there is a lack of studies focusing on the individual rather than a group, and that it is necessary to meet individual needs in order to effect change. Motivational Interviewing is focused on enhancing intrinsic motivation of the individual. This method will create a safe, supportive, and non-judgmental environment. It will determine a person's reasons for and against behavioral change. Finally, it will develop autonomy, or responsibility for changing behavior (Anshel & Kang, 2008). The results of this study indicate an increase in physical fitness levels and blood lipid profile scores. There was an 80% adherence to cardiovascular exercise and a 75% adherence to muscular exercise (Anshel & Kang, 2008).

In 2010, Anshel and Kang conducted a third 10-week intervention study at a university using the Disconnected Values model in order to determine changes in health behavior and blood lipids. One hundred and eleven females and fifty eight males classified as unfit participated in a wellness program. This program consisted of fitness testing, exercise prescription, advice from a personal trainer, private consultations, and five group seminars. Prior to beginning the program, all participants took fitness tests, blood tests, and were provided information regarding values. Anshel and Kang (2010) used the Disconnected Values model to determine how important certain aspects such as job performance, health, happiness, family, and a balance between work and life were in each participant's life. Each participant was assigned a performance coach who provided exercise routines, coaching and instruction, and reminded the participant of his or her values. It was determined that the most common disconnects between health and happiness was a lack of time and energy. Even though there was not a measurable change

in blood lipids, the study showed that participation in a wellness program focusing on changing habits in accordance with recognizing disconnects improved all fitness variables (Anshel & Kang, 2010).

In 2002, information was presented by a task force consisting of several police agencies and the National League of Cities' (NLC) revealing that the number of police officers experiencing cardiovascular incidences was increasing each year (Commission on Accreditation for Law Enforcement Agencies, 2010a). It was the belief that the lack of personal and agency wellness programs contributes to the average lifespan of only two to five years after retirement due to cardiovascular problems. In response to this information, the Commission on Accreditation for Law Enforcement Agencies (CALEA) presented a pilot study introducing the Voluntary Model Program. Data collected from the program showed the implementation of voluntary wellness programs to be cost effective. They increased the development and maintenance of physical performance capacity. They also developed improved present and future health status through regular exercise, proper nutrition, weight management, stress management, tobacco cessation, and substance abuse prevention (Commission on Accreditation for Law Enforcement Agencies, 2010a). It was recommended that newly implemented programs should include a plan to phase in the components of training leadership, a program fitness coordinator, health screenings, fitness assessment, goal setting, planning, education, and on-going support.

A follow-up report by Commission on Accreditation for Law Enforcement Agencies (2010b) revealed that very few departments accepted the Voluntary Model

Program. In response to this news, a second pilot study was initiated that focused on employing scientific methodology to validate an approach to the problem. In this study 14 variables were presented. Results of the study indicate that 11 of these 14 variables showed improvement. Many officers lost weight and were able to stop taking medication for hypertension and diabetes. A couple officers stopped smoking. Most officers showed significant improvement in their run times and overall body strength (Commission on Accreditation for Law Enforcement Agencies, 2010b). A review of literature conducted by these researchers revealed that between \$2 and \$5 is returned for every dollar an agency spends on a wellness program. This return comes in the form increased productivity, less absenteeism, lower turnover rates, fewer accident leading to fewer workers compensation claims (Commission on Accreditation for Law Enforcement Agencies, 2010b).

Table 3 presents a summary of articles attesting to the effectiveness and importance of wellness programs. It provides a side by side comparison of the method, sample, and findings of each study presented.

Table 3

Research Studies of Importance: Wellness Programs

Authors/year	Method	Sample	Findings
Tanigoshi, Kontos, and Remley Jr. (2008)	Qualitative - pre-test/treatment/post-test	60 Louisiana police officers	Participation in wellness programs that offer wellness counseling led to a decrease in weight and cholesterol levels
Briley, Montgomery, and Blewett, (1992)	Qualitative	28 Austin Police Department employees	Wellness programs including nutrition, health counseling, and physical exams lead to weight loss and lower cholesterol levels
Berry, Mirabito, and Baun (2010)	Qualitative - interview	300 people from 10 organizations	Participation in wellness programs led to lower agency cost, greater production, and higher moral
Anshel and Kang (2007)	Outcome-based action study	Southeastern university faculty	Improvements in blood cholesterol and triglycerides Participation in wellness programs led to improvements of cardiovascular capabilities, strength, and body fat percentages
Anshel and Kang (2008)	Qualitative / intervention	163 Police officers	Participation in wellness programs led to improvements of cardiovascular capabilities, strength, and body fat percentages
Anshel and Kang (2010)	Qualitative/ intervention	Unfit participants from university	All fitness variables improved after participation in wellness program focusing on changing habits

Summary and Conclusions

There are three major themes presented in this literature review. The first is the positive effects of healthy eating and fitness on health and performance of police officers.

The literature reviewed reference this topic provides studies and informational articles. These studies and articles stress the various relationships of fitness and health. There is a relationship between exercise adherence and healthy weight and injury and recovery time. There is a relationship between obesity and stress and other health problems. There is a link between fitness and the ability of officers to perform required core tasks.

Studies reviewed show that police officer ability tests are a valid test of ability. They are job related and non-discriminatory.

Wellness program benefits are reviewed. All studies reviewed have provided results informing that they are beneficial to both the individual and company. One study relayed that implementing a wellness program brought attention to some employees needing medical attention of which they were unaware.

The information that is not known from the reading is how police officers feel regarding the importance of physical ability as it relates to job performance. We do not know how officers feel about their own personal well-being. This study will address these concerns and unknowns by interviewing police officers that are not required to perform a regular physical ability test.

The next chapter will present the research design, methodology, and data collection procedures used to complete this study.

Chapter 3: Research Method

The purpose of this qualitative, phenomenological study was to understand the personal concerns of police officers assigned to patrol duties at a suburban police department in Illinois regarding the relationship between physical fitness and job performance. This study explored police officers adherence to a fitness regime and their concerns for fitness as it related to job performance. This study also examined whether an officer feels a department provided wellness program would enhance adherence to a regular exercise schedule and nutritional recommendations. Data was collected through personal interviews at a location determined by a patrol commander within the police department. This location was private and convenient for the participants.

This chapter will preview the design of this study and the rationale for choosing this design. It will describe the methods used for participant selection and my role as a researcher. I will present methodology as well as data collection and analysis procedures.

Research Design and Rationale

The following research questions were used to address the identified gap in the literature and to address the stated problem:

RQ1: What perceptions do police officers have about minimum physical fitness requirements and about maintaining them?

RQ2: How have the lived-experiences of police officers affected their opinions of physical fitness requirements and physical ability testing?

RQ3: How do police officers feel about the implementation of a personal wellness program?

The phenomenon in this study was the feelings of police officers in regard to health and the importance of exercise adherence. This study also sought to understand the opinions of police officers regarding the perceived benefits of department-provided wellness programs. This study was qualitative in nature with a phenomenological design. Phenomenological studies look to find a common theme among participants. This type of research most often employs personal interviews of the participants in order to obtain data regarding their lived experiences (Creswell, 2013). I chose this type of study because I was interested in determining a common experience among police officers with respect to decisions made to either adhere to exercise or abandon the desire to maintain a healthy fitness level. This information could lead to an understanding of what police departments can do in order to aid officers in better maintaining their physical ability and overall health.

Role of the Researcher

My role in this study as the researcher was to be a participant observer. I collected data through the use of interviews. I also performed the data analysis on the information collected from these interviews. In this qualitative study, I interviewed participants using self-created interview questions (Creswell, 2013).

Participants for this study consisted of police officers at a neighboring police department. I did not and do not have personal or professional relationships with police officers working for this chosen police department. However, this form of data collection does have the potential for response bias. Response bias is when a participant either denies a certain behavior or downgrades that behavior (Frankfort-Nachmias & Nachmias,

2008). In this study, police officers were questioned about their feelings towards the applicability and usefulness of physical fitness as it applies to their job performance. The participants may have felt that the interviewer was looking for a certain answer. Participants may have altered their true opinions in order to provide answers they felt were more favorable than their true opinions. In order to minimize the chance of response bias, I ensured that I asked open-ended questions rather than closed-ended questions. This allowed for an opportunity to explain any perceived negative opinions from the participant.

Methodology

Participant Selection Logic

The population I sought to represent in this study was suburban police officers not required to participate in regular physical ability testing. Between 5 and 25 participants were recruited from a suburban police department in a suburb of Chicago, Illinois. This number is required for phenomenological research (Mason, 2010). I spoke with the lieutenant in charge of the patrol division of this department about the study and the possibility of having patrol members participate. The patrol lieutenant gave his support and approval to conduct the study at the department (see Appendix D). However, he advised that he did not have the ability to provide final permission. Permission also had to be obtained from the police union president and the chief of police. Both the police union president and the police chief gave their support and approval to conduct the study. A letter of commitment was signed by the police union president and the chief of police (see Appendix D).

I emailed a recruitment letter to the patrol lieutenant in order to have it disbursed by email to every sworn member of the department (see Appendix E). This letter highlighted the research and provided my contact information if anyone had questions regarding the research.

Each participant was employed as a full time patrol officer who had been employed in that capacity between one year and 30 years. This criterion was confirmed through a patrol lieutenant employed at this police agency overseeing patrol officers. Police officers on each shift were provided information regarding the study and its purpose. Participants volunteered through the shift supervisor, and I was provided two dates that would accommodate the different shifts of the participants.

Instrumentation

The data collection instrument I used in this study was personal interviews (see Appendix A). In order to reduce interviewer bias, I followed a specific interview protocol (see Appendix B) that included an introduction to the researcher and the project, a statement informing that the interview was confidential and voluntary, the expected length of interview, the consent form, and the conclusion of the interview. Both the interview protocol and interview questions were researcher created. Published instruments regarding exercise behavior do not include opinion or are not specific for use with police officers. I created interview questions that led to an understanding of what was sought through the research questions. The protocol helped reduce researcher bias and controlled the flow of data collection. I used two recording devices to ensure

accuracy of data collection. These two devices were a personal computer for video and a digital recorder.

Procedures for Recruitment, Participation, and Data Collection

The data for this study was collected from 20 full-time patrol officers working in an Illinois suburban police department. All participants were over the age of 21 years. I collected the data in the form of personal interviews. A one-time interview was conducted at the police department for which the participants worked. Each interview was between two and 15 minutes. The scheduling of all interviews took approximately 4 weeks. This was expected in order to accommodate several different shifts and days off schedules. Each interview was recorded on both a personal computer and a digital recorder. I introduced myself to each participant and explained the type of research being conducted. The participant was provided an informed consent form and informed that the interview would be recorded. Each participant understood that the interview was voluntary and confidential (see Appendix C). Each Participant had the option to stop the interview at any time. Each interview consisted of 10 predetermined questions (see Appendix A) and ranged in duration from two minutes to 15 minutes. At the completion of each interview, participants were informed that there was no need for follow up, and that they would receive information explaining the results of the research conducted. In the event that there were too few participants, a second police department within a ten mile radius was made available for contact. This second department employs the same number of sworn police officers performing the same general daily duties.

Data Analysis Plan

Every transcript was thoroughly read and transcribed. I read each transcription several times in order to group the statements into workable categories. Each interview transcription was imported into the NVivo analysis software. I was able to use this software to break down organize the data that into codes as they related to police officer opinion regarding their health, job productivity, and effectiveness of wellness programs. Since the questions were open-ended, I used inductive coding. This type of coding allowed me to use the codes created to look for themes. I then grouped the themes as they related to each of the research questions (Frankfort-Nachmias & Nachmias, 2008). In the review of this data, I was able to identify patterns regarding the participant's behaviors, values, and environmental and social interactions.

Issues of Trustworthiness

Credibility

Credibility, or internal validity, is the proper relation of the instrument being used to the data being interpreted. Validity shows that the instrument is logically and empirically related to the concepts (Frankfort- Nachmias & Nachmias, 2008). Validity was enforced in this project by following the interview protocol. One step I presented in this protocol was to allow the participant to review the results for accuracy of the interpretation. Each participant received a copy of their individual transcript in order to allow an additional review for accuracy. Each participant was given the opportunity to ensure that the recordings were accurately transcribed.

Transferability

Transferability refers to the external validity of the research. External validity is the ability to generalize the information gathered in the study (Stangor, 2011). In this case, the results of the interviews should be consistent with the results of a study employing a different group of participants. This study employed a group of participants consisting of only police officers. Phenomenology was used in order to explain the importance of the lived experiences of the participants. I developed and provided the research instruments, the research protocol, and the overview of the results. This could assist other researchers and readers duplicate this study. The transferability of this study will be established in the methods, data collection, and results sections.

Dependability

Dependability, or reliability, in a study is the ability to retest the variables and get the same results with each retest (Stangor, 2011). If the results are not the same with each retest, the research is said to have random error. In order to enhance the reliability of this study, I used code- recode strategy and member check strategy. The code-recode strategy is when the researcher codes the data, allows a couple weeks gestation period, and re-codes the data in order to confirm the results are the same, or similar. Having the second code results be in agreement with the first set of code results enhances dependability (Anney, 2015). Member check strategy is having participants review the interpretation of the data and provide feedback as they feel necessary. If the data seems misinterpreted or incorrect, the participant responds with their opinion (Anney, 2015). Dependability was implemented in this study by ensuring the interview questions asked to participants

reinforced the study's focus. Bias was also reduced by following an interview protocol for each interview.

Confirmability

This research study presented a concern for objectivity on behalf of the researcher. The researcher in this case is a police officer interviewing other police officers. It was important not to allow personal feelings interfere with the accurate collection of data. I ensured confirmability in this study by creating an interview protocol. Personal bias was reduced by my strict adherence to this protocol with each participant. To further reduce bias, I ensured my facial expressions remained constant throughout each interview.

Ethical Procedures

In order to recruit participants, I met with the patrol lieutenant and union president of an Illinois suburban police department. I explained the study providing an informational email that was distributed to the patrol division. I asked the lieutenant and union president to sign a letter of cooperation (see Appendix D). The police department has private interview rooms that are easily accessible to participants during their shifts. This allowed for more convenience to the participants alleviating drive time and scheduling. There was an option to change the interview location at the request of the participant should it have caused limitations. At no point were the interviews conducted prior to the approval of the Institutional Review Board (IRB).

Each participant was explained that the interview was confidential and voluntary and provided an informed consent form. Every participant was told that at any point the

interview can be stopped at his or her request. After obtaining permission from the participant to record, each interview was conducted in a private room and recorded with two recording devices for accuracy. Each participant was also told that he or she can return to review the interpreted data for further accuracy.

To alleviate bias, all patrol officers were provided the opportunity to participate. All participants were over the age of 21 years. In order to ensure confidentiality and protection of data, I set up a safe box for storing drives containing data collected. The files are also password protected. All participant identifiers were removed to ensure anonymity. The only people to be provided access to this data are myself and my dissertation committee members. All data will be destroyed after a 5 year time frame from completion of the project.

Summary

This chapter reviewed my methodology. This included procedures for participant selection, data collection, data analysis, and instrumentation. It also presented tactics for ensuring reliability, validity, and objectivity. Ethical concerns were addressed and accounted for in this review.

Chapter 4: Results

The purpose of this study was to examine police officer concerns about health and job performance, to learn how important police officers believe personal wellness programs are in aiding them to remain in optimal physical condition, and to examine whether the officers believed a department-provided wellness program could aid officers with continued adherence to a regular exercise schedule and nutrition recommendations. The research questions for this study focused on police officer perceptions of minimum physical fitness requirements and about maintaining them, the lived-experiences of police officers and the effects those experiences had on their opinions of physical fitness requirements and physical ability testing, and how police officers felt about the implementation of a personal wellness program. The following sections describe the research setting, demographics, data collection procedures, the data analysis procedures, the trustworthiness, and the results of the study.

Research Setting

I conducted the interviews in a private room dedicated to patrol officer report writing. No one can see into the room or hear the responses, so the participants could feel comfortable providing honest and complete answers. The participants were given permission from their supervisor to take time from their patrol duties in order to participate fully in the interview process. There were no personal or organizational conditions that influenced the responses of the participants or hindered my ability as the researcher to interpret the results of the study based on their responses. Due to its

availability to patrol officers, there were a couple of minor interruptions of officers walking in not realizing the room was in use, which may have led to a level of bias.

Demographics

The participants who volunteered for the research study were male and female suburban police officers who were not required to participate in an annual physical ability test. The officers interviewed for the study were employed as full time sworn police officers with between one and 30 years as a police officer. Participants who volunteered were assigned to either day shift, afternoon shift, or midnight shift. All officers were between the ages of 21 and 60 years of age. Table 4 provides a breakdown of the demographics of the study participants.

Table 4

Participant Gender and Shift Assignment

Participant	Gender	Shift Assignment
Participant 1	Male	Afternoon shift
Participant 2	Male	Afternoon shift
Participant 3	Male	Afternoon shift
Participant 4	Female	Afternoon shift
Participant 5	Male	Midnight shift
Participant 6	Male	Midnight shift
Participant 7	Male	Midnight shift
Participant 8	Male	Midnight shift
Participant 9	Male	Midnight shift
Participant 10	Male	Midnight shift
Participant 11	Male	Midnight shift
Participant 12	Male	Midnight shift
Participant 13	Male	Midnight shift
Participant 14	Male	Day shift
Participant 15	Female	Day shift
Participant 16	Female	Day shift
Participant 17	Male	Day shift
Participant 18	Female	Day shift
Participant 19	Female	Day shift
Participant 20	Male	Day shift

Data Collection

I collected data from 20 participants. All interviews were conducted on two different dates, May 31, 2016 and June 20, 2016. Each participant will be referred to as Participant 1, Participant 2, etc. All participants requested to remain anonymous. The data collection plan presented in Chapter 3 was not varied.

Data Analysis

The first step of the coding process consisted of transcribing each interview. Once each interview was transcribed, I read each transcription thoroughly. I noted pertinent comments for each interview question that I felt needed to be used for further analysis. Each transcript was reread a second time to ensure all important ideas were noted. After each interview was read, I assigned every idea from each of the answers a color code as it related to each research question. I then entered that idea into the NVivo software system. The NVivo data analysis system took each entry and grouped them into coded categories as I assigned them. This made it possible to look at similar passages and ideas from all transcripts at one time and alleviated the need to search each individual interview for particular content. After all the main ideas were assigned a code, all codes were then grouped into larger themes. Once the codes were gathered into themes, I realized some of the themes applied more directly to a different research question than that for which the interview question was originally designed. These themes were placed into the different category as was considered appropriate. These themes were created as a result of a more in-depth analysis of the codes I initially created. They represent a more detailed interpretation of the participant's responses.

Evidence of Trustworthiness

Credibility

I established credibility by implementing a member check process. Each participant received a copy of their individual transcript in order to allow an additional review for accuracy. Each participant was given the opportunity to ensure that the recordings were accurately transcribed.

Transferability

In order to assist other researchers and readers to duplicate this study in similar environments, I established transferability in this study by describing in detail the research methodology, data collection procedures, and the results. Phenomenology was used in order to explain the importance of the lived experiences of the participants. I developed and provided the research instruments, the research protocol, and the overview of the results. This could assist other researchers and readers in duplicating this study.

Dependability

Dependability was implemented in this study by ensuring the interview questions asked of participants reinforced the study's focus. Bias was also reduced by following an interview protocol for each interview.

Confirmability

It was important not to allow personal feelings interfere with the accurate collection of data. I ensured confirmability in this study by creating an interview protocol. Personal bias was reduced by my strict adherence to this protocol with each

participant. To further reduce bias, I ensured my facial expressions remained constant throughout each interview.

Study Results

After thoroughly analyzing the data for each research question, several themes became apparent. These themes were recognized as representing the majority of the participants involved. The following sections present these themes and the research question to which they correspond.

Research Question 1

RQ1: What perceptions do police officers have about minimum physical fitness requirements and about maintaining them?

This research question sought to identify police officer feelings about the importance of physical fitness requirements and how physical fitness related to police work. The interview questions presented allowed for answers based on police officer behavior, values, and personal experiences. The themes related to this question were the importance and necessity of fitness, relationship of fitness to police officer productivity, and if fitness needed improvement. The codes related to these themes were *important*, *necessary*, *relates to productivity*, *does not relate to productivity*, *types of exercise*, and *current level of fitness*.

Theme 1: Importance and necessity of physical fitness for police officers.

Many officers related that fitness was a viable part of the job and that it was important to maintain a certain level of fitness throughout their career. Seventeen out of the twenty participants, which represents 85% of the sample, believed that it is necessary to

participate in an annual physical ability test in order to motivate officers and hold them accountable for their own health and fitness. For example, Participant 4 stated, “I believe it is, it’s good in order, based on the job that we do, we need to be in shape. Especially if we need to go hands on with someone. Um, just for our overall well-being. I believe it’s good that the department would have one.” Participant 6 stated, “I agree with it. And, it helps keep accountability on employees.” Participant 8 provided personal reasons why participating in an annual physical ability test would be beneficial,

I think it’s good. It’d be beneficial if we did that. Because, I know that I’ve gone up and down. On this shift, I’ve actually got married. So, I took off 30 pounds. In then since September, I’ve already put it back on. So, um, I think it would help, um, help monitor our, our, our, our health, um, and keep people, keep people in shape.

Participant 12 showed a concern for the fact that it is required to be eligible to be a police officer, but that the requirements are not continued throughout an officer’s career:

I think it’s a viable part of the job. I believe that we should be at least in shape enough for this to qual, or for the entry, uh, fitness test to get into the academy. I think you should at least be able to maintain that the rest of your career.

Participant 19 mirrored this statement:

I think it should be required because if it is required for you to partake in the POWER test and pass the POWER test to do the job, then I feel like it’s something you should have to partake in throughout the course of your

employment and pass. I think it still should be something that you partake in every year and have to pass.

Participant 20 commented that an annual physical agility test would be helpful in keeping the officers motivated to stay healthy:

I think it'd be a good idea. I mean I see a lot of time people need a little incentive and I think, you know, a little push there to follow through. I think they all could use a little push too if the department said, you know, we want you guys to participate in something.

Theme 2: Relationship of physical fitness to police officer productivity. Sixteen of the police officers interviewed, representing 80% of the sample, agreed that productivity is dependent upon fitness. Participant 7 stated that it is a huge part of being a police officer. Participant 10 stated that fitness has a great “value in day to day stuff that we do.” Many of the officers commented that fitness is important to police officer productivity.

A few officers disagreed that fitness plays a role in police officer productivity. One example is a statement from Participant 1 who stated there is “no correlation because police work is so much more than what shape you're in.” Participant 8 stated that “some guys are out of shape and active. You can be in the best shape of your life and still be a slug.”

Theme 3: Needs improvement. All of the participants participated in some type of fitness activity including running, other cardiovascular activities, weight lifting, or stretching. Six of the participants admitted that their exercise routine used to be much more regular. Half of the participants believed they are out of shape or their current level of fitness has room for improvement. Thirty percent of the participants felt as if their level of

fitness was average or good. The final 20% felt that they would consider themselves fit or even in great shape.

Participant 2 stated that “I should be more intense when I work out . . . work out a little harder than I do right now.” Participant 4 stated, “I would like to do more. I would like to be more, uh, active. I need more. I need more activity”. Participant 9 stated “I’ve got some work to do”. Participant 18 stated he was “not up to where I’d like to be.”

In the analysis of this question, the responses revealed information about how police officers feel regarding the importance of physical fitness. The research themes associated with this research question were the importance and necessity of physical fitness for police officers, the relationship of physical fitness to police officer productivity, and if fitness needed improvement.

Table 5 presents an analysis output representation of each theme associated with the first research question and the percentage of participant support for each theme.

Table 5

Research Question 1: Theme Output

Theme	Number of participants Agree	Number of Participants Disagree	Percentage of Participants Supporting Theme
1	17	3	85%
2	16	4	80%
3	16	4	80%

Research Question 2

RQ2: How have the lived-experiences of police officers affected their opinions of physical fitness requirements and physical ability testing?

This research question sought to explain how the lived-experiences of police officers have shaped their opinion of the importance of physical ability testing as it relates to promotions, eligibility for specialty positions, and prevention of injuries. Each interview question allowed for answers based on police officer behavior, values, and personal experiences. The themes related to this question are not plausible, fitness should or should not weigh in on promotions and eligibility for specialty positions, and prevention of injuries and further benefits. The codes relating to these themes are not plausible, fitness should weigh in on promotions and eligibility for specialty positions, fitness should not weigh in on promotions and eligibility for specialty positions, and prevention of injuries.

Theme 1 Testing officers annually and requiring officers to keep to a certain level of fitness is not plausible. Ten of the twenty participants feel that requiring officers

to participate in an annual physical agility test is not plausible. Two of these ten participants feel annual testing is not plausible due to pension and union contract restrictions. Other officers expressed concern about the approach, consequences, and allowances. For example, Participant #16 showed concern about punishment for those officers not able to pass an annual physical agility test.

Participant #2 states since there are no incentives provided, the time and effort put forward is not worth it. Participant #20 added that there is always something else to do with family and overtime details.

Participant #3 stated that it is unfair that patrol officers are not allotted time while on duty to work out while other divisions within the department have time. It was further advised that patrol officers are expected to always be ready for calls and are not allowed to be unavailable at any time.

Theme 2 Fitness should or should not weigh in on police officer promotions and eligibility for specialty positions. Thirteen of the participants, which represents sixty-five percent, do not believe promotions and eligibility for specialty positions should solely be based upon fitness standards. However, fifty-five percent of the total participants stated it would be a good idea to consider fitness ability as one factor in the decision process.

Four officers believed strongly that fitness plays a role in the ability to be promoted or eligible for a specialty position. For instance, Participant #13 stated, “I think it should be part of the process, certainly. I think it should be part of the process. The way you hold yourself and keep yourself, I think that should be part of the process.”

Participant #4 stated,

I think that if somebody is gonna be a leader, they need to show that they are a leader and have good, not only good pen and paper skills, but be in . . . in good shape. . . . I think it would be more expected, like if you're in the, a tactical position. You should definitely be in shape for that based upon the nature of, um, or the capacity in which they work.

Participant #20 stated,

I think it would be a good idea to take that into consideration because if you're gonna ask other people to do stay physically fit and everything you should be, if you're their boss or supervisor, I think it's important for you to set a good example and show them that this is, this is important. We all take it serious and you can't say if you're not in good shape and then ask somebody all of a sudden get in, you know, you have to be in shape. And, you know, follow me. They understand that you have to be able to show a good example. I think it's- it should be mandatory, I believe.

Participant #19 stated,

I think that if you don't meet the standard, then, yes, there has to, you know, just like if you don't qualify, you have a second opportunity or a third opportunity. And, then it's like, ok you're not capable of doing the job cause that's part of the job. I don't, so I think that if you didn't meet the standard, it would just . . . it wouldn't be that you wouldn't get promoted. But, if you're not, you just, you wouldn't have your job.

Several more officers disagreed with the idea that fitness should be a consideration for promotions and eligibility for specialty positions. Four participants did not relate a high level of physical fitness to being a good cop. Participant #1 stated, “I don’t think they should be based on physical fitness standards because being the most physically fit person in the room doesn’t make you the best cop.” In addition, Participant #7 stated, “I don’t think that for specialty positions, it should be solely based on physical fitness ‘cause you can have someone that’s physically fit that doesn’t know the job”. Participant #12 stated, “You use more of your mind, I guess, than your body in certain positions and what not.”

Participant #8 stated there is no correlation.

I, again, you can be the healthiest person and not know how to run a shift or be in charge of people...I don’t think fitness correlates to those positions to me...I really think that the type of officer you are and the type of knowledge you have and, and the experience you have and the reputation you have and the respect you have really doesn’t matter how physically fit you are. I’m not gonna look at somebody like, well, he’s fat. So, I’m not gonna listen to him...I don’t think that correlates.

Participant #3 stated,

I don’t know that the physical fitness standards really play a role in either of those. I think it’s based on what type of officer you have. Un, you know, if I had one of, you know, the best officers goes out every day and writes, uh, you know, a writes a bunch of tickets, makes a bunch of arrests, and he’s not, he’s out of

shape. . . . But, if it's, uh, somebody that's more qualified because they're not physically fit, I don't think it should be a . . . I don't think it should be held against him.

Participant #18 stated that promotions should be based more on how well an officer can perform his or her job. Participant #9 stated that being "superiorly" fit does make a good officer. "Physical fitness is important overall as, you know, an officer. But, I don't think it's should be a criteria for getting promoted or put into a specialty position".

Theme 3 prevention of injuries and further benefits. One hundred percent of the twenty participants interviewed agreed that physical fitness plays a role in the prevention of on the job injuries. Many participants further added reasons that police officers would benefit from being physically fit in their personal lives as well as on the job.

Participant #6 stated, "My understanding is that back problems are a big issue in law enforcement. I've had some back issues in the past, myself...I've done research where they say, like, for the number one, or one of the top reasons for back problems is poor stomach muscles". Participant #8 stated, "I think the core muscles help that, alleviate back pain...I think that, you know, having good flexibility, good core, good core muscles, um so you're not carrying around extra weight. Um, you already...the belt. Um, will prevent future back problems. Participant #16 stated, "...especially as we're aging, you get around some of the fewer back issues, you know if you're better fit and have your weight down".

Some officers related that a fellow officer had died of a heart attack while chasing a suspect. They believe that cardiovascular strength and endurance are important to injury prevention.

Participant #1 stated,

Um, in terms of long endurance running, if you're chasing somebody, if you have that cardiovascular endurance and health, especially as you start getting older, it'll help you from, you know, as I. We actually had a guy who chasing somebody and passed away... Yeah, because of a heart issue. So, I think if you prolong . . . keep yourself cardiovascularly healthy, when you get in a situation like that where you have to go after somebody, it will benefit you in the end.

Participant #15 stated,

You're... your body is able to go from zero to a hundred better. You adapt easier to different situations. You're not getting worn out, um, and you're just able to handle the physical demand of sitting and then going to being active. So, I don't think it's as much of a jar to your system.

Participant #20 stated,

It's critical because of, you're sitting there and everything's at rest and then, all of a sudden, you gotta make a quick movement . . . If you're physically fit, you can make those adjustments and, once again, I can just relate to myself. I know if your sedentary life and everything all of a sudden you try to make a quick movement.

Some participants related that being physically fit made them stronger and more ready to handle any situation that arises. Participant #19 stated,

I feel much better and I feel stronger having, you know, doing um, you know, some sort of interval training or, uh, cross fit or hot yoga versus running cause it's, it's hard on your body to just always run. . . . Um, I think if you find something that becomes more of a hobby, and then you strengthen, you know, your body then it's obviously gonna make you stronger in certain situations.

Participant #9 stated, "Um, it, it just makes you healthier, more flexible, stronger. So, yeah, I, overall, even like sitting in your squad like that having proper posture and um being in better shape all, all that kind of helps out".

Participant #11 points out that an officer needs to have a certain level of strength to remain safe in confrontations,

Um, if you end up in some situation where you're in a, you know, a physical confrontation with someone, and, you know, you can't physically move a person off of you, well you're . . . you're gonna be at a disadvantage. Um, you know, just . . . just having your muscles be, you know, prepared for something like that.

Some participants stressed the importance of keeping the body limber in order to be prepared for an unexpected physical incident. Participant #10 stated, "Just simple stuff being kind of flexible. Getting . . . even getting in and out of the car."

Participant #2 stated,

If you stretch daily, that'll help prevent because your body's limber, you know.

And, I mean, I've experienced when you don't stretch, you're like tight and that's where, you know, you end up jerking a certain way. You end up pulling a muscle.

You end up injuring yourself on duty as a result of not staying limber and

stretched. So, I think it's very important to, um, stay fit and limber because it, uh, cause that does help reduce injuries on duty.

Participant #1 stated,

Um, being physically fit, let's say, if you're in a prolonged, um, foot pursuit or, um, you know, you've never stretched or something and being in the car you get cramped and stuff. You can stay pretty limber most of the time, and it can really keep you from getting hurt in that way. You know, you get out of the car and start running, you pull a muscle cause you haven't ran in months and months and months. I think it's beneficial.

Many participants commented on the fact that more physically fit officers that do encounter on the job injuries have less recovery time and that being physically fit is beneficial outside of duty requirements. Participant #7 stated, "I mean get, not only on the job, but off the job injuries. It can help prevent in just being physically fit is a part of everyday life. And, you see that more people who are physically fit seem to live longer."

Participant #20 stated,

If you haven't used those muscles in a while, it's the initial thing is you won't be able to probably do it. But, secondly, if you do it, you're gonna suffer. You're just gonna hurt you. Where before you might have recovered in a day or so like this. Now, it's gonna be something that's gonna be with you probably for 2 or 3 or 4 or 5 days. So, it's good to be fit in order to make thos adjustments, quick movements and stuff like that. So, then you'll be able to, uh, you know, cut back might

initially maybe that first day you might be a little stiff. But, the next day, you're fine.

Three participants noted specifically they believe that being physically fit prevents injuries and sickness. In particular, Participant #5 stated, "Um, if you have a sudden need have shoot, be physical with someone, you have a better likelihood of not getting injured. It's obviously, I'm sure it goes hand in hand. The correlation is more physically fit are probably out less days because of injuries".

In the analysis of this question, the responses revealed information about how police officers feel regarding the importance of physical fitness requirements and physical agility testing. The research themes associated with this research question were testing officers annually and requiring officers to keep to a certain level of fitness is not plausible, fitness should or should not weigh in on police officer promotions and eligibility for specialty positions, and prevention of injuries and further benefits.

Table 5 presents an analysis output representation of each theme associated with the second research question and the percentage of participant support for each theme.

Table 6

Research Question 2: Theme Output

Theme	Number of participants Agree	Number of Participants Disagree	Percentage of Participants Supporting Theme
1	10	10	50%
2	13	4	65%
3	20	0	100%

Research Question 3

RQ3: How do police officers feel about the implementation of a personal wellness program?

This research question sought to understand police officers feel about their departments implementing a personal wellness program. Participants agreed that it would be beneficial for the department to provide nutrition and exercise training to police officers. There were mixed opinions regarding the implementation of personal wellness programs. The themes related to this question are exercise and nutrition training should be provided, voluntary programs and programs based on personal goals should be implemented, and voluntary wellness programs are not realistic. The codes related to these themes are great idea, important, no interest in participating in a wellness program, have interest in participating in a wellness program, rewards and personal goals will not work, and rewards and personal goals would be a good idea.

Theme 1 Exercise and nutrition training should be provided. Seventy percent of the participants agreed that providing nutrition and exercise training to officers would

be a great idea. Participant #1 stated, “I think the department actively participating in that is wonderful” and Participant #6 agreed stating, “I think that’d be great. I think...a lot of people would benefit from it”.

Five of the twenty participants made note that exercise and nutrition training for officers would help alleviate stress and it would be beneficial for midnight shift officers. Participant #10 stated,

And, I think if the department was to ensue any kind of a fitness policy, I think if you’re gonna have that, you should have...also have some kind of nutrition portion of it. Or, have, um, uh, personal trainers or officers tha are, uh, trained as, uh, uh, as personal trainers to have the ability to show people how to do certain exercises. And, have the nutrition part of it. Cause, I don’t think people realize how nutrition, how important nutrition is when it comes to just working out. Working out by itself is not gonna, uh, achieve the ultimate goal.

Theme 2 Voluntary programs and programs based on personal goals should be implemented. Ninety-five percent of the participants expressed interest in having voluntary programs and programs based upon personal goals implemented. Two participants expressed the need to make the goals both realistic and challenging in order for the program to really be beneficial. For instance, Participant #19 stated,

I guess if there were some criteria for what your personal goals are that they were, um, somewhat of a challenge you know? . . . I think that the personal goal aspect is, you know, you should be able to do more than 10 sit-ups, So I, so I think that

if, if the goals that people set are evaluated and like ok that's realistic, but still somewhat challenging, then that would be ok.

Participant #3 stated, "I would participate if it was done the right way and they allowed it, allowed you some time to work out. I wouldn't have any issues with that". Participant #20 suggested that a voluntary program might be more effective if examples could be provided, "If you could show them and tell them, you know, this...this will work for you. And, uh, have examples and show them how these people have, uh have tried to, you know the old thing that the coffee and the doughnuts and things like that. That's... that doesn't work out. You see some of these old time retirees, and uh, it catches up to you, unfortunately".

Theme 3 Voluntary wellness programs are not realistic. Twenty-five percent of the participants interviewed provided the opinion that voluntary wellness programs are not realistic. A big concern of participants is time constraints. Many would participate if officers were allowed time while on duty to exercise. For example, Participant #10 stated,

I know there's another department in, uh, in the north suburbs that the chief instituted a policy where you can actually work out on duty during your, um, lunch. Whether it's like 30 or 40 minutes. Um, you're, you . . . you're basically going, uh, busy off the street. You work out. The only requirement is that you have your radio with you, just in case something crazy were to happen. Um, then you have to go. But, any kind of, uh, uh, non-emergency call, they...they can be put on hold. And, uh, um, and they allow you to work out on duty, which I think is great.

Participant #6 related his concern to a village-wide wellness program that has been in effect for a couple years,

Um, unfortunately, I think the scheduling is not conducive to everybody, you know? The midnight guys are gonna be the ones that suffer the most. A lot of times, they have these meetings . . . they just had one last Thursday. I think it was like 1130 in the morning, you know. It was like, I wanted to go to it. But, I'm like, I was working the night before and the night of.

In the analysis of this question, the responses revealed information regarding police officer feelings about the implementation of personal wellness programs. The research themes associated with this research question were exercise and nutrition training should be provided, voluntary wellness programs and programs based on personal goals should be implemented, and voluntary wellness programs are not realistic.

Table 6 presents an analysis output representation of each theme associated with the third research question and the percentage of participant support for each theme.

Table 7

Research Question 3: Theme Output

Theme	Number of participants Agree	Number of Participants Disagree	Percentage of Participants Supporting Theme
1	19	1	95%
2	19	1	95%
3	8	12	45%

Summary

The research questions in this study yielded an array of answers leading to the idea that police officer wellness is of great concern amongst police officers. Most officers agree as to the importance of police officer wellness, but admit that the nature of the job makes it difficult to keep to a minimum fitness standard. Even though officers agree that personal wellness is the responsibility of the officer, it was also acknowledged that it would be a great help if police departments could provide assistance in this area.

All officers commented on the importance of fitness throughout an officer's career, not just when they are young and naturally in shape. The nature of the daily requirements of being a police officer does not allow for officers to age out of a minimum fitness standard.

The following chapter will discuss the results of the study and explain the findings of the research. It will provide conclusions and recommendations for future research. The next chapter will also explain the limitations of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine police officer concerns about health and job performance, to learn how important police officers believe personal wellness programs are in aiding police officers to remain in optimal physical condition, and to examine whether the officers believe a department provided wellness program could aid officers with the continued adherence to a regular exercise schedule and nutrition recommendations.

This study revealed that police officers do find physical fitness to be an important aspect of police work. Officers believe that there is a high correlation between fitness and police officer productivity. They also believed that the more fit an officer is, the less susceptible he or she is to on duty injuries. All officers felt that they should be held accountable by being required to take an annual physical ability test. However, a majority of the officers admitted they were in less than optimal shape. Many of the respondents felt that it was ultimately the responsibility of the officer to remain in optimal physical condition. However, the majority of police officers felt the department should be more active in providing nutrition and exercise assistance throughout an officer's career.

The officer's opinions were split regarding on the idea that the level of physical fitness is associated with the ability to be promoted or be eligible for a specialty position.

Interpretation of Findings

The findings of this study confirmed that police officers believe physical fitness is an important and necessary aspect of police work. This finding is in agreement with other researchers who studied police officer physical fitness as it relates to job performance and

the prevention of on the job injuries. Collingwood et al. (2003) stated that a certain level of fitness is necessary to perform critical tasks of police work, and that fitness is directly related to job performance.

Many of the officers interviewed in this study supported the idea that being physically fit could have a positive impact on reducing the risk of getting injured on the job. This is in line with the results of a study performed by Guffrey et al. (2015) in which it was revealed there is an indirect support of a correlation between a fitness regimen and on duty injuries. Gufey et al (2015) also found that overweight officers are more likely to be injured on duty.

Leal (2006) found that officers believe fitness is an important aspect to police work in that it can help enhance the ability to handle violent encounters and counter the negative effects of sedentary hours spent in a squad car. A study conducted by Nabeel et al. (2007) found that officers with higher levels of fitness reported less sprains, back pains, and chronic pain. Mroz (2008) also relates that a lack of optimal fitness leads to injury and illness.

The responses from officers throughout this study also supported the idea of police officers being held accountable for maintaining their own level of fitness throughout their careers, agreeing that officers should be tested on an annual basis. Literature presented by ILETSB (2014) stresses the need for an officer fitness evaluation to ensure the ability of cadets to endure the physical and academic demands of the academy. Mroz (2008) questions why police officers are tested prior to being accepted

into the police academy but most departments do not require further testing of physical ability.

The officers interviewed in this study also questioned the fact that this evaluation is not continued throughout a career since the demands of the job do not change over time. This concern is reinforced by Collingwood et al. (2003), who relate that physical ability tests are job related. Bissett et al. (2012) conducted a study collecting the thoughts of police officers regarding physical ability testing, and they found a majority of officers supported the idea of physical ability testing.

My study further revealed that 27% of the officers surveyed admitted that they could not pass a physical ability test at that time. This is also in line with the results of this study. The majority of police officers interviewed reported that their level of fitness was less than optimal and needed work. Information provided by Quigley (2008) reaffirms that police officer fitness levels are below average. Collingwood et al. (2004) stated that police officers are less fit than half of the U.S. population.

The police officers interviewed in this study agreed about the importance of physical fitness as it related to productivity, on the job injuries, and daily job tasks. However, the majority also noted that they felt the department should assist in helping officers maintain a certain level of fitness by providing training in the areas of nutrition and exercise. There was concern regarding any accommodations made to the night shifts. Officers wanted to be given permission to work out while on duty as other divisions within the department are allowed to do. Some officers mentioned that incentives provided by the department would help motivate the officers to maintain a certain fitness

level. Mroz (2008) touched on the importance of department involvement in his study, noting that some obstacles to police officers staying in shape are long hours and shift work. He also noted that a lack of workout facilities and the inability to work out during the shift can hinder officer adherence to fitness (Mroz, 2008).

Limitations of the Study

One limitation, in addition to those expressed in Chapter 1, was encountered while conducting the interviews. The private room assigned for the interviews was accessible to all patrol officers throughout the shift. On a couple of occasions, an officer did not realize the room was in use and walked in the room. This caused a temporary interruption in the interview for two of the participants.

Recommendations

One recommendation for further research is to duplicate this study's methodology and research design in order to obtain the opinion of police union representatives and policy makers within a department. Continued research should focus not only on police officer opinions, but the opinions of policy makers, human resource representatives, insurance agents, and the community.

This study can add to the understanding of how important police officer fitness is to the job and, in turn, to those who depend upon police for emergency assistance. This study can aid in the understanding of what is needed by police officers in order to maintain fitness.

Implications

This study can help create positive social change by bringing about awareness of the concerns of police officers regarding physical fitness and its importance to police work. The police officers had an opportunity to express their feelings regarding the importance of physical fitness. This study also allowed the officers to acknowledge their own current level of fitness, as well as their personal struggles to maintain an optimal level of fitness. The methodology and design of this study allowed for the officers to become aware of the struggles they face from day-to-day and what types of solutions they need in order to maintain optimal fitness.

From the point of view of the police department, this study could aid in providing awareness to supervisors, human resources representatives, police union representatives, and policy makers. The results of this study could provide these entities with the knowledge of what police officers are looking for from a department. It could teach these groups that the negative aspects of not being in optimal physical condition far outweigh the costs of providing the resources necessary for the officers.

From a community standpoint, awareness brought about from this study could instill confidence in and positive feelings towards the police department, goodwill that they may need to rely on one day. Citizens understand that their tax dollars pay for emergency services. Community members want to know that police departments are using that money wisely. Information provided in this study shows that money put towards police officer wellness is money well spent.

Employing personal interviews as the methodology of this study allowed each participant to be open and honest regarding their feelings toward the topic. The interview questions brought about awareness and allowed for the participants to acknowledge aspects of personal wellness that may not be addressed on a regular basis. The topic of the study personally affected each participant on more than just an employment level. The topic of personal wellness reached out to the participant's family as well.

Conclusions

This study on police officer perception of wellness programs revealed the need to increase awareness regarding the current state of provisions for police officer wellness. Police officers openly acknowledge the need for optimal fitness as it relates to police work. They understand that the requirements of the job do not allow for an officer to have anything less than an optimal level of fitness. However, it is also clear that everyday life and stressors of the job can lead to situations where officers lack in this area. This study also revealed the need for officers to be trained in ways to identify their own personal wellness needs and be able to enhance their well-being.

This study focused on the behaviors of the officers. Through the questions, daily behaviors were revealed and acknowledged. By openly speaking about the reasons officers either do or do not adhere to a personal wellness program, the officers were able to understand what types of changes need to be enacted in order to improve.

The values of the participants were also understood through this research. Police officers believe that it is important to maintain a certain level of fitness in order to effectively perform their duties. They believe that presenting a strong, fit image to the

public is important. All of the participants who acknowledged their level of fitness is below standards stated that they needed to make a change and improve. The environmental factors were realized and some solutions and ideas were presented.

Police officer wellness is an important issue for more people than the officers themselves. Police officer health affects police departments as a whole and the community. A police officer's ability to perform can have a life or death result. This study can bring about awareness to those ultimately affected by the health of police officers in addition to the police officers themselves.

The theory of planned behavior uses personal attitude, subjective norms, and perceived behavioral control to determine the intention of behavior. Personal attitude refers to the officer's perception of the consequences of not staying in shape and how important the behavior of staying in shape is to the officer. The results of this study revealed that the officers understood the consequences of not staying in shape, but did not necessarily prescribe to maintaining their shape due to the rigors of the job. In review of their responses, they acknowledged being in shape is important, but they would not subject themselves to go above and beyond what the job required unless it involved some type of compensation from the department.

The officers acknowledged that improving physical fitness not only benefits them in their career but can extend to their families and outside activities. Subjective norms refers to what each officer believes others expect of them. It was revealed that officers understand it is expected of them to be in top physical shape in order to be accepted into the academy.

Perceived behavioral control refers to the perception each officer has regarding barriers to staying in shape or the ease of continually maintaining a certain level of fitness. Officers in this study revealed several barriers such as family life, shift work, lack of knowledge regarding fitness, and lack of incentive and accountability. The officers in the study responded about the potential barriers, but they most agreed the maintaining of an appropriate level of physical activity would have to be scheduled like all the other activities in their daily lives.

Therefore the perceived behavioral control would have the officers have to make a decision whether the anticipated behavior is worth sacrificing other aspects of their life. In this analysis, the officers reviewed the risks of not maintaining their health status versus what the department required them to achieve in order to maintain employment. So even though being in physical shape is an important aspect of their employment as police officers, they do not have a minimum requirement that is reflected on their evaluations. This in turns directs their thoughts towards not needing to maintain a level of physical fitness once they are hired.

The data of this study revealed that police officer perception is that fitness is necessary. However, the department should provide motivation or incentive to do it based on the long-term needs of the department to have physically fit officer working in the department. Physical fitness requirements are only presented prior to being hired on to a department. Therefore, it is believed that once an officer is hired, their perceived thoughts about exercise and fitness change since it is not a part of the job unless it is an aspect for which the department is willing to underwrite as an extra employee benefit.

References

- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683.
- Allen, T. D., & Armstrong, J. (2006). Further examination of the link between work-family conflict and physical health: The role of health related behaviors. *American Behavioral Scientist, 49*(9), 1204-1221.
doi:10.1177/0002764206286386
- American Heart Association, (2013). Statistical fact sheet 2013 update. Retrieved from https://www.heart.org/idc/groups/heart-public/@wcm/@sop/@smd/documents/downloadable/ucm_319588.pdf
- Anderson, G. S., Plecas, D., & Segger, T. (2001). Police officer physical ability testing: Re-validating a selection criterion. *Policing, 24*(1), 8-31.
- Anshel, M. H., & Kang, M. (2007). An outcome- based action study on changes in fitness, blood lipids, and exercise adherence, using the disconnected values model. *Behavioral Medicine, 33*(3), 85-98.
- Anshel, M. H., & Kang, M. (2008). Effectiveness of motivational interviewing on changes in fitness, blood lipids, and exercise adherence of police officers: An outcome-based action study. *Journal of Correctional Health Care, 14*(48), 47-62.
doi:10.1177/1078345807308846

- Anshel, M. H., Kang, M., & Brinthaup, T. M. (2010). A Values-based approach for changing exercise and dietary habits: An action study. *International Journal of Sport and Exercise Psychology*, 8(4), 413-432.
- Berry, L. L., Mirabito, A. M., & Baun, W.B. (2010). What's the hard return on employee wellness programs? *Harvard Business Review*, 88(12), 1-9.
- Bissett, D., Bissett, J., & Snell, C. (2012). Physical agility tests and fitness standards: perception of law enforcement officers. *Police Practice and Research*, 13(3), 208-223.
- Boyce, R. W., Jones, G. R., & Hiatt, A. R. (1991). Physical fitness capacity and absenteeism of police officers. *Journal of Occupational Medicine*, 33(11), 1137-1143.
- Briley, M., & Montgomery, D.H., Blewett, J. (1992). Worksite nutrition education can lower total cholesterol levels and promote weight loss among police department employees. *Journal of the American Dietetic Association*, 92(11), 1382-1385.
- Chapola, C. (2002). Good nutrition benefits all officers. *Law and Order*, 50(12), 90.
- Collingwood, T., Hoffman, R. J., & Smith, J. (2003). The need for physical fitness. *Law and Order*, 51(6), 44-50.
- Collingwood, T. R., Hoffman, R., & Smith, J. (2004). Underlying physical fitness factors for performing police officer physical tasks. *The Police Chief*, 71(3), 1-7.
- Commission on Accreditation for Law Enforcement Agencies. (2010a). Health and fitness in law enforcement: A voluntary model program response to a critical issue. *CALEA Update Magazine*, 87. Retrieved from <http://www.calea.org/calea-update->

magazine/issue-87/health-and-fitness-law-enforcement-voluntary-model-program-response-c

Commission on Accreditation for Law Enforcement Agencies. (2010b). Revisiting the fitness and health in law enforcement model. *CALEA Update Magazine*, 96. Retrieved from <http://www.calea.org/calea-update-magazine/issue-96/revisiting-fitness-health-law-enforcement-model-program>

Copay, A. G., & Charles, M. T. (1998). Police academy fitness training at the Police Training Institute, University of Illinois. *Policing: An International Journal of Police Strategies & Management*, 21(3), 416-431.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: SAGE Publications

Criminal Justice USA. (2015). How to Become a Police Officer. Retrieved from <http://www.criminaljusticeusa.com/police-officer/>

Dothard v. Rawlinson, 433 U.S. 321 (1977)

Ebling, P. (2002). Physical fitness in law enforcement: Follow the yellow brick road, *FBI Law Enforcement Bulletin*, 71(10), 1-5

Frankfort-Nachmias, C., & Nachmias, D. (2008). *Research methods in the social sciences* (7th ed.). New York, NY: Worth Publishers.

Gotay, A. (2010). Predictive models for police physical tests. *Law and Order*, 58(2), 32-35.

- Guffey, J. E., Larson, J. G., & Lasley, J. (2015). Police officer fitness, diet, lifestyle and its relationship to duty performance and injury. *Journal of Legal Issues and Cases in Business*, 1-17.
- Guion, L. A. (2002). *Triangulation: Establishing the validity of qualitative studies*. Gainesville, FL: University of Florida Extension Institute of Food and Agricultural Sciences.
- Hess, K., Orthmann, C., & Cho, H. (2013). *Police operations: Theory and practice*. Clifton Park, N.Y.: Delmar Cengage Learning.
- Hogan, J. (1989). Personality correlates of physical fitness. *Journal of Personality and Social Psychology*, 56(2), 284-288. doi:0022-3514/89/S00.75
- Illinois Law Enforcement Training and Standards Board. (2014). Peace officer wellness evaluation report (POWER) test. Retrieved from <http://www.nipsta.org/Power/index.aspx>
- International Association of Chiefs of Police. (2009). *Reducing officer injuries: Final report*. Retrieved from http://www.theiacp.org/portals/0/pdfs/IACP_ROI_Final_Report.pdf
- Krainik, P. W. (2003). Physical fitness pays off. *Law and Order*, 51(2), 54-57.
- Kriegsman, J. (2012). Police physical fitness standards. *Law Enforcement Today*. Retrieved from <http://www.lawenforcementtoday.com/police-physical-fitness-standards/>
- Lagestad, P. (2011). Physical skills and work performance in policing. *Institutional Journal of Police Science and Management*, 14(1), 58-70.

- Lau, B. (2001, November). An introduction to police defensive tactics. *Journal of Non-lethal Combatives*. Retrieved from http://ejmas.com/jnc/jncart_lau_1101.htm
- Leal, H. (2006). Benefits of physical fitness for police officers. *Texas Police Journal*, 14-19.
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18(1), 3-9.
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum: Qualitative Research*, 11(3), 1-19. Retrieved from <http://www.qualitative-research.net>
- Mroz, R. (2008). Career physical fitness standards. *PoliceOne.com News*. Retrieved from <https://www.policeone.com/police-products/fitness-health-wellness/articles/1735761-Career-physical-fitness-standards/>
- Nabeel, I., Baker, B. A., McGrail, M. P. & Flottemesch, T. J. (2007). Correlation between physical activity, fitness, and musculoskeletal injuries in police officers. *Minnesota Medicine*, 90(9), 40-43.
- Norvell, N., & Belles, D. (1993). Psychological and physical benefits of circuit weight training in law enforcement personnel. *Journal of Consulting and Clinical Psychology*, 61(3), 520-527.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications

- Quigley, A. (2008). Fit for duty? The need for physical fitness programs for law enforcement officers. *Police Chief*, *LXXV* (6), 1-5.
- Ramey, S.L., Downing, N.R., Franke, W.D., Perkhoun, Y., & Alasagheirin, M.H. (2011). Relationships among stress measures, risk factors, and inflammatory biomarkers in law enforcement officers. *Biological Research for Nursing*, *14*(1), 16-26.
doi:10.1177/1099800410396356
- Rannals, L. (2014). Even police officers should be concerned about a sedentary lifestyle. *RedOrbit*
Retrieved from <http://www.redorbit.com/news/health/1113074885/sedentary-police-need-to-get-up-and-move-021914/>
- Shell, D.E. (2002). Law enforcement entrance-level physical training: Does it need a new approach? *Sheriff*, *54*(4), 26-29.
- Smith, R. A., & Biddle, S. J. H. (1999). Attitudes and exercise adherence: Test of the theories of reasoned action and planned behaviour. *Journal of Sports Sciences*, *17*(4), 269-281. doi:10.1080/026404199365993
- Spitler, D. L., Jones, G., Hawkins, J., & Dudka, L. (2014). Body composition and physiological characteristics of law enforcement officers. *British Journal of Sports Medicine*, *21*(4), 154-157. Retrieved from <http://bjsm.bmj.com>
- Stangor, C. (2011). *Research methods for the behavioral sciences* (4th ed.). Belmont, CA: Wadsworth.

Strating, M., Bakker, R., Dijkstra, G.J., Lemmink, K.A.P.M., & Groothoff, J.W. (2010).

A job-related fitness test for the Dutch police. *Occupational Medicine*, 60(255), 255-260. doi:10.1093/occmed/kqq060

Swensen, D.X., Waseleski, D., & Hartl, R. (2008). Shift work and correctional officers:

Effects and strategies for adjustment. *Journal of Correctional Health Care*, 14(2), 299-310. doi:10.1177/1078345808322585

Tanigoshi, H., Kontos, A.P., & Remley Jr., T.P. (2008). The effectiveness of individual

wellness counseling on the wellness of law enforcement officers. *Journal of Counseling and Development*, 86(1), 64-86.

Tennessee v. Garner, 471 U.S. 1 (1985)

Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Pelletier, L. G., & Mongeau, C. (1992).

Ajzen and Fischbein's theory of reasoned action as applied to moral behavior: A confirmatory analysis. *Journal of Personality and Social Psychology*, 62(1), 98-109.

Wellness program. (2016). In *BusinessDictionary.com*. Retrieved from

<http://www.businessdictionary.com/definition/wellness-program.html>

Appendix A: Interview Questions

1. What are your thoughts about your department requiring you to participate in an annual physical ability test?
2. What is your opinion about the thought that being physically fit is essential to being a productive police officer?
3. What do you believe about promotions and eligibility for specialty positions being based upon physical fitness standards?
4. What types of exercises do you regularly engage in?
5. In what ways do you think being physically fit could prevent on the job injuries?
6. Describe your current level of fitness?
7. What are your thoughts about the department providing nutrition and exercise training to increase fitness?
8. Would you share your thoughts about participating in a voluntary wellness program if established in your department?
9. Would you be willing to participate in a fitness assessment program that offers rewards based upon personal goals?
10. Tell me anything else you would like to say about physical ability, job performance, and wellness.

Appendix B: Interview Protocol

Date: _____

Interviewer: _____

1. Introduction of researcher to participant.
2. Describe to participant the research and the type of information being collected
3. Discuss and obtain signature on informed consent form.
4. Detail the interview process by telling the participant about the time constraint and length of interview.
5. Inform the participant the interview will be recorded.
6. Inform the participant the interview is voluntary, and they have the right to stop the interview at any time.
7. Inform the participant they will receive a hardcopy of their interview for quality control purposes.
8. Inform the participant that all the information given in the interview will remain confidential as stated in the confidentiality agreement.
9. The interviewer will begin the interview process with the interviewee. After the final question has been answered, the interviewer will provide a thank you statement to officially end the interview.

Appendix C: Confidentiality Agreement for Research Participants

CONFIDENTIALITY AGREEMENT

Name of Signer: Ellen M. Chism

During the course of my activity in collecting data for this research: **“Police Officer Perception of Wellness Programs”**, I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant’s name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I’m officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

By signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: _____ Date: _____

Appendix D: Letter of Cooperation

Dear Ellen M. Chism,

Based on my review of your research proposal, I give permission for you to conduct the study entitled Police Officer Perception of Wellness Programs within this department. As part of this study, I authorize you to conduct individual interviews. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: Provide a room to conduct the interviews. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Appendix E: Recruitment Letter

Dear Officer,

I am writing to ask if you would agree to be interviewed in person for a research project entitled “Police Officer Perception of Wellness Programs”. I am a student at Walden University. This study and your participation is not affiliated or endorsed by the department. This research aims to gather opinions of patrol officers regarding the importance of physical fitness for police officers and their thoughts regarding department provided wellness programs.

If you agree to participate, I will interview you for about thirty minutes at the police department during shift hours for your convenience. During the interview, I will ask questions regarding physical fitness, nutrition, and support programs.

At the end of this email is attached an Informed Consent form that details your rights as a research participant. By agreeing to participate in this study, it is implied that you read and understand your rights.

If you are interested in participating in this study or have any questions, please do not hesitate to contact me via email (chisme@cityrm.org) or telephone (630-201-6605). Thank you for your time.

Ellen M. Chism
Doctoral Candidate
Walden University