

ASSOCIATIONS BETWEEN ETHICAL CLIMATE  
AND JOB SATISFACTION AMONG  
PHYSICAL THERAPISTS

by

CHRIS COX

JOHN HIGGINBOTHAM, COMMITTEE CHAIR  
MARILYN WHITMAN  
LEA YERBY  
BRETT BENTLEY

A THESIS

Submitted in partial fulfillment of the requirements  
for the degree of Master of Science  
in the Department of Community Medicine and Population Health  
in the Graduate School of  
The University of Alabama

TUSCALOOSA, ALABAMA

2022

Copyright Chris Cox 2022  
ALL RIGHTS RESERVED

## ABSTRACT

Physical therapy requires clinicians to have interpersonal relationships with patients while managing productivity standards. Such dynamics demand special attention to rules, regulations, as well as personal and organizational ethics. If the organization's ethical climate is not in line with the clinician's, then stress may occur. Ethic stress is caused by related issues that are found in an organizational setting due to the emotional, physical, and psychosocial consequences of moral distress (Ulrich C, O'donnell et al.; 2007). Ultimately, ethic stress is induced by the organization's ethical climate (Ulrich C, O'donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). Consequences of such stress may cause a decrease in job satisfaction (Ulrich C, O'donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). Low job satisfaction is associated with increased stress and subsequent clinician illness, absenteeism, musculoskeletal injury, and burnout (Escriba-aguir, 2006., Hakanen, 2007., De Croon, 2004., Kivimaki, 2006. Vitell SJ, & Davis DL; 1999. The purpose of this study is to examine associations between ethics or ethical climate and job satisfaction of physical therapists. To date, there are no such studies in the literature.

A sample of 112 physical therapists, 72 females (64.3%) and 40 males (35.7%), from all 50 states completed the survey. Participants' ages ranged from 26 to 67 years old, with a median age of 49. The level of clinician experience ranged from 1 to 44 years. Therapists studied worked in a wide variety of settings with outpatient orthopedic comprising the largest division.

Simple linear regression analysis was performed and indicated a relationship amongst "high levels of pressure to bill," billing that was in the "gray area" or "unethical", and higher ethical

climate scores with lower job satisfaction. Multiple regression analyses indicated that when the variables were controlled billing that was in the “gray” or “unethical billing” categories were related to lower job satisfaction scores. Although necessary for further studies, the current one indicates job satisfaction is affected by ethics or ethical climate and is necessary to create a healthy work environment.

## DEDICATION

This thesis is dedicated to my daughter Kassidy. You've shown me how to love unconditionally and have inspired me through your hard work.

## LIST OF ABBREVIATIONS AND SYMBOLS

$\alpha$	Cronbach's index of internal consistency
df	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
$\bar{M}$	Mean: the sum of a set of measurements divided by the number of measurements in the set
p	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
$r$	Pearson product-moment correlation
$t$	Computed value of t test
<	Less than
=	Equal to

## ACKNOWLEDGEMENTS

This thesis would not be possible without many people supporting me and providing input. I would like to take the time to thank those who have worked so hard to help me be where I am in the project and who have supported me along the way.

I have grown a lot through the population health program at The University of Alabama. Thank you, Dr. Higginbotham, for taking me on as an advisee late in the process. I would also like to thank you for providing practical and understandable input in your courses and with respect to this thesis project. I would also like to thank Dr. Gregg for giving me direction when I felt lost. Dr. Whitman, Dr. Yerby, and Dr. Bentley deserve a lot of thanks for agreeing to be on my committee, when I know they are very busy. Additionally, I would like to thank Dr. James from The University of Oklahoma Health Sciences for tutoring me on statistical analysis and use of the SAS tool. Final thanks must go to Jay Wheat, the director of physical therapy and OU Health systems, for allowing me to further my education.

## CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iv
LIST OF ABBREVIATIONS.....	v
ACKNOWLEDGEMENTS.....	vi
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
INTRODUCTION.....	1
LITERATURE REVIEW.....	4
RESEARCH QUESTIONS .....	11
METHODS .....	12
RESULTS .....	17
DISCUSSION .....	25
CONCLUSION.....	28
REFERENCES.....	29
APPENDIX A: INFORMED CONSENT EMAIL.....	35
APPENDIX B: MOAQ-JSS.....	36
APPENDIX C: IRB APPROVAL.....	37



## LIST OF TABLES

Descriptive Statistics.....	17
Strongly Correlated Questions.....	20
Correlations.....	21
Independent Samples.....	21
Independent Samples.....	22
Independent Samples .....	24

## LIST OF FIGURES

Pertinent Question.....	13
Job Satisfaction Survey.....	14
Ethical Climate Survey.....	15

## INTRODUCTION

Physical therapy is a hands on profession through which a licensed clinician must assist patients to meet personal and functional goals. Unfortunately, physical therapy contains peripheral obstacles that may adversely affect the clinician's attitude, work enjoyment and subsequently patient care. Physical therapy departments and clinics are businesses that depend on patient care for profitability. Revenue is required to sustain the facilities as well as the clinician's salaries and benefits. However, stress related to productivity standards due to poor ethics or ethical climate may cause lower job satisfaction.

Job satisfaction has been defined by many scholars as the degree to which the desirability of one's job reflects the quality of life and psychological wellbeing of workers (Pincus JD, Knip JE, & Rayfield RE; 1990, Pugliesi K; 1999). In essence, job satisfaction is the positive attitudes and feelings a person has towards their work. Generally, when satisfaction is high the employee will demonstrate more loyalty and less absenteeism within the company for which they work (Aziri B; 2011). Job satisfaction can be conceptualized with five basic constructs: (1) pay, (2) potential for promotion, (3) positive work relationships, (4) positive relationship with administration, and (5) satisfaction with work duties. Unfortunately, perceived unethical behavior from coworkers or administration will likely decrease job satisfaction in all constructs except pay (Vitell SJ, & Davis; 1990).

Unfortunately, the origin of organizational integrity issues is not simple. Changes in health care culture (which refers to changes in patient care models), cost containment, clinician roles,

technology, rules and regulations, and management (Bau R, Bolus S, & Carolan T; 2002) direct how an organization proceeds ethically. Additionally, productivity measures and corporate structure contribute as well. Small businesses and corporations are challenged with a wide array of ethical and regulatory issues due to the ever changing landscape of health care policy, third-party payment systems, Medicare, Medicaid, and productivity demands of the respective facility. Regulatory changes began in 1965 with the creation of Medicare and Medicaid and continued with diagnostic related groups (DRG) in 1982. Those changes alone created a level of difficulty for clinics and clinicians seeking reimbursement for services. Going further, physician quality reporting systems (PQRS) produced more hoops by capping physical therapy services (Richardson R; 2015). The result may include reimbursement or payments through both ethically and unethically creative methods of billing patients.

In essence, the root of the problem may be due to organizational integrity of the corporate structure (Vancouver J.B., & Schmitt N.W.; 1991) that produces an unethical climate (Valentine S, Godkin L, Fleischman GM, & Kidwell R; 2011) due to increased pressure on productivity (Deckard GJ, Present JM; 1989) clinicians may inherit an ethical dilemma.

Organizational ethics explains how the culture of a company can influence its employees, wherein, the clinician may have a misguided view or context of ethical regulations. In this case, organizations (such as physical therapy clinics) are moral agents that maintain moral obligations (Silverman HJ; 2000). Many ethical issues that occur in the clinic are beyond the control of clinicians and are the result of ethical climate, which is created through organizational integrity. Ethical climate presents the values of an organization projected through articulated goals, treatment of patients, staff, students, community, and how conflicts and controversy are managed (Ulrich C, O'donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). It consists of a bilateral

relationship between the organization, clinician, and patient, which is different than medical ethics which focuses on the unilateral relationship between the therapist and patient (Ghaderi A, Malek F, Mohammadi M, Maskopi SR, Hamta A, & Madani SA; 2018). Additionally, ethical climate refers to the shared perceptions of organizational practices related to ethical decision making and reflection and includes issues of power, trust, and human interactions within an organization (Olson, 1998). Ultimately, when an unethical climate exists, clinicians experience “ethic stress” (Pantik S.A.B, Rajab A, Shaari R, Shah I.M, Rahman H.A, & Badri S.K.B; 2012).

Ethics stress is related to ethical issues that occur in an organizational setting and may be due to the emotional, physical and psychosocial consequences of moral distress (Ulrich C, O’donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). This type of stress can originate from a therapist being constrained in the parameters of the appropriate moral course. It may be intrinsic to the professional role of the clinician, due to daily care for patients and the relationships within a complex bureaucratic healthcare system. Ultimately, ethic stress is induced by the organization (Ulrich C, O’donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007) or ethical climate. Consequences of such stress may cause a decrease in job satisfaction (Ulrich C, O’donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). Furthermore, generalized stress among clinicians has been linked to poor patient outcomes (Campo, 2009). Stress among clinicians has been associated with burnout, turnover, sickness absence and work related musculoskeletal disorders (Escriba-aguir, 2006., Hakanen, 2007., De Croon, 2004., Kivimaki, 2006. Vitell SJ, & Davis DL; 1990).

The aim of this study is to determine if job satisfaction can be dictated by ethics or ethical climate. To date there are no studies describing associations between those aforementioned variables.

## LITERATURE REVIEW

### Job Satisfaction

Limbasiya et al. created a survey in which physical therapists reported paperwork, feelings of being overworked, high physical demands, and mental stress as the most dissatisfying aspect of the job. On the other hand, autonomy, positive challenges of the job, and job engagement increased satisfaction. Adetoyeje's finding complements Limbasiya in that Nigerian physical therapists consider paperwork and the physical aspect of the job to be a major cause of dissatisfaction in their job. Another author explored the relationship between greater "freedom of self expression" and job satisfaction. Similar to the findings of Limbasiya, Valentine et, al. supplied surveys to nearly 800 health care workers and administrators at a multicampus education hospital and the results suggested group creativity and corporate ethical values were positively associated with increased job satisfaction (Valentine S, Godkin L, Fleischman GM, & Kidwell R; 2011).

Randolph developed a survey that examined the level of career satisfaction and desire to stay on the job. Similar to Limbasiya et al, the author found that professional growth was a major intrinsic factor that positively influenced job satisfaction. Going further, Randolph found that having a work environment "in line" with the therapist values was another factor that had a positive impact on job satisfaction.

Age or experience level may show some differences in what influences job satisfaction. Kota et al., created a survey for therapists who were within the first year of practice. In line with Limbasiya, they discovered "working conditions" to be a major factor for job satisfaction.

Although not in the physical therapy profession but in a related field, Hansen and Grov, reported that younger Norwegian nurses tended to have greater satisfaction with life and job satisfaction than their older more experienced counter parts. In contrast to Hansen and Grove, Tong used the Michigan Organizational Assessment Questionnaire and discovered that older nurses, agewise, and those who had more experience in the private hospital reported higher levels of job satisfaction, particularly with “pay” and “autonomy”. Going further, the author reported age and work experiences were associated with their levels of job satisfaction.

Gharakhani and Zaferanchi, investigated the effect of job burnout on employees ’turnover intention with regard to job satisfaction as a mediator. Ultimately, the authors repored that job burnout, depersonalization and reduced personal accomplishment had negative effects on job satisfaction with emotional exhaustion not being observed as associated with job satisfaction. Further emotional exhaustion, depersonalization and reduced personal accomplishment had a significant positive effect on turnover intention while job satisfaction as a mediator variable between job burnout and employee’s turnover intention was negative.

The concept of “Organizational Citizen Behavior” encompasses an employee whose commitment to an organization that goes beyond that of it’s basic requirements. Job satisfaction and organizational commitment have a positive relationship with job performance and OCB, which in turn may help in reducing employees ’absenteeism, turnover and psychological distress. Workers with high levels of employee/job satisfaction are more likely to engage in OCB. Mehta, et al. analyzed the impact of OCB on various organizational performance measures through various propositions based on antecedents and consequences of organizational citizenship behavior. The following are considered antecedents by the authors: role clarity, leadership, organizational commitment, organizational justice, and individual traits. Going further they

believe these aforementioned antecedents are correlated with five organizational performance parameters: reduced turnover, reduced absenteeism, employees satisfaction, loyalty, consumer satisfaction, and consumer loyalty. Role perception includes conflicts and ambiguity which may have a significantly and negative relation to OCB. On the other hand, role clarity and role facilitation are positively related. Not a health care profession, however, speaks to the relationship between job satisfaction and ethical standards of an organization. Vitell et al., sought to study the relationship between ethics and job satisfaction for management information systems (MIS) professionals. Through using self administered questionnaires they concluded that MIS professionals are less satisfied with their jobs when they identify unethical behavior within their company.

#### Ethical Environment

Forsyth believes that individuals perceptions of ethical environments are based on relativism and idealism in describing individual differences in moral philosophy. Persons with high relativistic ideology question the value of universal moral principles, while those on the other end of the spectrum emphasize the importance of universal moral rules. Individuals high in idealism seek to avoid harm by assuming that good consequences can, with proper action, always be obtained. Clinicians who are less idealistic make the assumption that good is mixed with bad (Forsyth D.R.; 1992). Ultimately the congruence between between perceptions and organizational integrity have a strong influence on job satisfaction.

According to a metaanalysis by Kristof-Brown (2005) “person supervisor fit”, or “PS” provided a very strong relationship between the subordinates perceptual congruence with respective supervisors and overall satisfaction in their jobs. Essentially, workers were more satisfied and committed when their values coincided or were “congruent” with that of the



supervisors (Kang SW, Byun G, & Park HJ; 2014. Equally important, Valentine et al. found a positive correlation between group creativity and corporate ethical values and both variables were associated with increased job satisfaction (Valentine S, Godkin L, Fleischman GM, & Kidwell R; 2011).

Organizational ethics explains how the culture of a company can influence its employees, wherein, the clinician may have a misguided view or context of ethical regulations. In this case, organizations (such as physical therapy clinics) are moral agents that maintain moral obligations (Silverman HJ; 2000). Organizational Integrity and how it projects the ethical climate through the administrative hierarchy is a major component for a physical therapist's job satisfaction.

#### Ethical Climate

Ethical climate presents the values of an organization projected through articulated goals, treatment of patients, staff, students, community, and how conflicts and controversy are managed (Ulrich C, O'donnell P, Taylor C, Farrar A, Danis M, & Grady C; 2007). Ethical climate refers to the shared perceptions of organizational practices related to ethical decision making and reflection and includes issues of power, trust, and human interactions within an organization (Olson, 1998). Ultimately when an unethical climate exists physical therapists develop "ethics stress".

Valentine et al., suggested that group creativity and corporate ethical values were positively related, and that both variables were associated with increased job satisfaction. Additionally, corporate ethical values and job satisfaction were associated with decreased turnover intention. Further the article discusses ways that sales managers can create work cultures that facilitate increased ethical values. Similarly, a study by Ulrich et al., described how nurses and social workers in the US view the ethical climate in which they work, including the degree of ethics

stress they feel, and the adequacy of organizational resources to address their ethical concerns. The authors examined the extent to which the aforementioned factors affect nurses and social workers' job satisfaction and their interest in leaving their current position.

Leader Follower Value Congruence In Social Responsibility and Ethical Satisfaction: A Polynomial Regression Analysis (Kang SW, Byun Gukdo, & Park HJ;2014)

This meta analysis examined 163 articles for the research into the relationship between “leader-follower value congruence” and job satisfaction of employees. Using a polynomial regression and response surface modeling methodologies indicated that leader follower value congruence in social responsibility was positively related to the ethical satisfaction of employees. They used multivariate models to examine nurses and social workers in the US and discovered that job satisfaction seemed to be protective of respondents' intentions to leave as did perceptions of adequate or extensive institutional support for dealing with ethical issues. Going further black nurses were over 3 times as likely than white nurses to desire leaving their position. Finally, another article by Kang et al., included a meta analysis that summarized that leader-follower value congruence in social responsibility was positively related to the ethical satisfaction of employees.

Corley et al., examined the relationship between moral distress intensity, moral distress frequency, the ethical work environment, and relationship of demographic characteristics to distress intensity and frequency. Their results indicated moral distress intensity and ethical work environment were correlated with moral distress frequency. Age was negatively correlate with moral distress intensity as well as being African American was related to higher levels of moral distress intensity.

## Measurement

The Ethical Climate Questionnaire (Cronbach's alpha 0.78) was designed to examine the perceptions of how members of an organization make important decisions based on events, practices, and procedures that have ethical criteria (Bronson J.W.; 1993). Victor and Cullen created the Ethical Climate Questionnaire to examine the types of ethical climates that exist within an organization. These climates may be divided into: 1. Maximizing one's own self interest, 2. Maximizing joint interests, or 3. Adherence to universal principles.

Kohlberg (1981) further expanded the aforementioned climate into an individual's progression in ethical concern from individual exchanges, social system concerns, and finally a concern for humanity as a whole.

One indirect correlate to job satisfaction is feeling a sense of vitality and learning in the workspace referred to as "Thriving". Similar to increased job satisfaction, thriving is associated with reduced job strain and increased general health and well being. Thriving employees are not as likely to endure "burn out" and more apt to have an active role in developing successful career paths (Hall, 1998, Klein, Rudolph, & Zachar, 2019). According to Leiter & Maslach thriving is associated with reduced job strain and increased overall health. Further, promoting thriving at work could reduce costs through decreasing absenteeism and stress (Leiter & Malach, 2005, Klein, Rudolph, & Zachar, 2019).

The measurement consists of 10 items with a seven point scale (1= strongly disagree to 7= strongly agree.) The first category covered was "learning" at work with the following statements: 1. I find myself learning often, 2. I continue to learn more as time goes by, 3. I see myself continually improving, 4. I am not learning, 5. I am developing a lot as a person. The second

category of the survey was “vitality”: 1. I feel alive and vital, 2. I have energy and spirit, 3. I do not feel very energetic, 4. I feel alert and awake, 5. I am looking forward to each day.

The Michigan Organizational Assessment Questionnaire with the Job Satisfaction Subscale (MOAQ-JSS) is a shortened version of the MOAQ. The difference is that the MOAQ asks more details regarding the job environment (Job attributes), psychological states (meaningfulness of work, and feelings of responsibility), and employee response (motivation) (Bowling and Hammond, 2008).

The benefit of the Job Satisfaction Subscale is that it is short and has great face value. It asks three questions: 1. “All in all I am satisfied with my job”, 2. “In general, I don’t like my job”, 3. “In general, I like working here”. Other scales such as Job Descriptive Index (JDI) has 72 items (Smith et al., 1969) and the long and short forms of the Minnesota Satisfaction Questionnaire which have 100 and 20 items, respectively (Weiss, Dawis, England, & Lofquist, 1967). The aforementioned metrics ask a lot of psychometric components and job specific attributes that take away from the the face value. Bowling & Hammands believe that the JSS have strong reliability and construct valid measure of job satisfaction.

## RESEARCH QUESTIONS

Considering the review of current literature, the following questions were identified:

Question 1: Is there a relationship between job satisfaction and ethical climate?

Question 2: Does the relationship between job satisfaction and ethical climate vary by gender?

Question 3: Does the relationship between job satisfaction and ethical climate vary by experience?

Question 4: Does the relationship between job satisfaction and ethical climate vary by age?

Question 5: Does job satisfaction differ between those with high versus low pressure to abide by productivity standards?

The current research aims to answer the aforementioned questions and add to the review of literature on the subject of job satisfaction, ethics, and ethical climate. By answering the questions, an outline might be established as to how variables such as age, gender, experience, and ethical climate affect job satisfaction of physical therapists.

## METHODS

### Data Sources

The study used data from a survey designed by the author. It consisted of questions with the purpose of extracting demographic information, direct questions about ethics, a job satisfaction survey, and an ethical climate survey. It was dispersed through manually searching different physical therapy businesses and using email addresses found on those sites. Unfortunately, not all websites have the therapist's contact information. Subsequently, an umbrella approach was used by posting the informed consent and survey link on organizational and clinic pages. The survey was dispersed from June 13th, 2021 until March 20th, 2022 with 112 total participants.

Pertinent Questions:

Please list gender.
My year of birth is?
I have been a physical therapist for (years)
Please identify the setting where you work (acute, outpatient, skilled nursing)
The company where I work is: (profit, nonprofit, other)
The facility I work is best described as (Privately Owned, Publicly owned, National)
Please report work schedule (Full-time, Part time, PRN)
On average I treat the following number of patients per HOUR: (1, 2, 3, 4, 5, 6+)
I receive bonuses: (Yes based on profit sharing, Yes based on individual productivity, No I don't)
I am aware of productivity standards at my facility. (Yes or No)
Please report level of pressure to maintain a certain level of productivity: (0-10)
I feel like my billing practices are: (Ethical, Gray area/interpretational, or Unethical)
I have patients perform extra exercises so that I may charge the next higher unit. (Never, occasionally, frequently, or always)
Please identify whether or not a medicare patient is ever treated at the same time as another patient with commercial insurance. (I only bill for one patient, or I bill for both patients)

Figure 1.

### Dependent Variable

The survey's outcome variable consisted of a modified version of the "Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale" and "Thriving at Work" scales. Both were combined for a cumulative score from a 3 point likert scale consisting of "disagree", "neither agree or disagree", or "agree". The higher the total score represented higher job satisfaction (based on the MOAQ-JSS, and Thriving at Work metrics).

The MOAQ-JSS was modified excluding inverting the second of the following questions which “all in all, the job I have is great”, “In general, I am satisfied with my job”, “My job is very enjoyable”. The reason for the modification was to create simplicity.

#### Job Satisfaction Survey

1. All in all, the job I have is great.
2. In general, I am satisfied with my job.
3. My job I very enjoyable.
4. At work I find myself learning often.
5. At work I continue to learn more and more as time goes by.
6. At work I see myself continually improving.
7. At work I am not learning.
8. At work I have developed a lot as a person.
9. At work I feel alive and vital.
10. At work I have energy and spirit.
11. At work I do not feel very energetic.
12. At work I feel alert and awake.
13. At work I am looking forward to each new day.

Figure 2.

#### Independent Variables

The primary independent variable examined was the ethical climate scale. This metric contains 36 items using a 5 point likert scale, (mostly false, somewhat completely false, somewhat true, mostly true, and completely true) that was used to produce a comprehensive score. With the higher score correlating with the perception of a lower ethical climate.



## Ethical Climate Questions

1. In this company, people are mostly out for themselves.
2. The major responsibility for people in this company is to consider efficiency first.
3. In this company, people are expected to follow their own personal and moral beliefs.
4. People are expected to do anything to further the company's interests.
5. In this company, people look out for each other's good.
6. There is no room for one's own personal morals or ethics in the company.
7. It is very important to follow strictly the company's rules and procedures here.
8. Work is considered sub-standard only when it hurts the company's interests.
9. Each person in this company decides for himself what is right and wrong.
10. In this company, people protect their own interest above other considerations.
11. The most important consideration in this company is each person's sense of right and wrong.
12. The most important concern is the good of all the people in the company.
13. The first consideration is whether a decision violates any law.
14. People are expected to comply with the law and professional standards over and above other considerations.
15. Everyone is expected to stick by company rules and procedures.
16. In this company, our major concern is always what is best for the other person.
17. People are concerned with the company's interests—to the exclusion of
18. Successful people in this company go by the book.
19. The most efficient way is always the right way, in this company.

20. In this company, people are expected to strictly follow legal or professional standards.
21. Our major consideration is what is best for everyone in the company.
22. In this company, people are guided by their own personal ethics.
23. Successful people in this company strictly obey the company policies.
24. In this company, the law or ethical code of their profession is the major consideration
25. In this company, each person is expected, above all, to work efficiently.
26. It is expected that you will always do what is right for the customer and public.

Figure 3.

## RESULTS

### Sample Characteristics

A sample of 112 physical therapists, 72 females (64.3%) and 40 males (35.7%), from all 50 states completed the survey. Similarly, the APTA (American Physical Therapy Association) reports 65% and 35% for PTs (females and males, respectively) with 71% and 29% for PTAs (females and males, respectively) (APTA, 2020). Participants ages ranged from 26 to 67 years old, with a median age of 49 years of age compared to the national median age of 40 for PTs and 34 for PTAs (APTA, 2020). Experience ranged from 1 to 44 years with a median of 20 years. Therapists studied worked in a wide variety of settings with outpatient orthopedic comprising the largest division (65.2%), following highly specialized areas (oncology, pelvic floor, and pediatrics; 15.2%), Acute (10.7%), and lastly uncommon or other settings (8.9%). Nationally, outpatient settings consists of 42.3%, specialized areas 27.4%, and the “other category” 2.57% (Data USA: Physical Therapists, 2022) Ownership was also divided into privately owned (58.9%) being the largest and hospital based (21.4%) being the next, followed an “Other” category (19.6%) which consists of many different types or locations.

### Descriptive Statistics

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>60-69</b>	19	16.96	19	16.96
<b>50-59</b>	36	32.14	55	49.11
<b>40-49</b>	19	16.96	74	66.07
<b>30-39</b>	30	26.79	104	92.86

<b>20-29</b>	8	7.14	112	100.00
<b>Gender</b>				
<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>Male</b>	40	35.71	40	35.71
<b>Female</b>	72	64.29	112	100.00
<b>Setting</b>				
<b>Setting</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>Acute</b>	12	10.71	12	10.71
<b>Outpatient</b>	73	65.18	85	75.89
<b>Highly Specialized (oncology, Pelvic Floor)</b>	17	15.18	102	91.07
<b>Other</b>	10	8.93	112	100.00
<b>Experience</b>				
<b>experience</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>40-49</b>	6	5.41	6	5.41
<b>30-39</b>	25	22.52	31	27.93
<b>20-29</b>	30	27.03	61	54.95
<b>10-19</b>	18	16.22	79	71.17
	<b>Profit</b>	<b>Type</b>		
<b>Profit</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	
<b>Private</b>	87	77.68	87	
<b>Non-Profit</b>	24	21.43	111	
<b>Other</b>	1	0.89	112	
<b>Schedule</b>				

<b>Schedule</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>Full Time</b>	95	84.82	95	84.82
<b>Part Time</b>	14	12.50	109	97.32
<b>PRN</b>	1	0.89	110	98.21
<b>Other</b>	2	1.79	112	100.00

Table 1.

The participants were asked two important questions related to ethical practice and climate. 1. “I feel like my billing practices are:” (“Normal” 45.5%, “Gray area” 46.4% “Unethical” 8%), 2. “Please report level of pressure to maintain a certain level of productivity” (“None” 5.4%, “Some” 47.3%, “A lot” 41.1%).

Strongly Correlated Questions  
I am aware of productivity standards at my facility.

Billing	Frequency	Percent	Cumulative Frequency	Cumulative Percent	
Normal	51	45.54	51	45.54	
Gray Area/interpretational	52	46.43	103	91.96	
Egregious	9	8.04	112	100.00	
Pressure to maintain a certain level of productivity					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	6	5.4	5.7	5.7
	Some	53	47.3	50.5	56.2
	A lot	46	41.1	43.8	100.0
	Total	105	93.8	100.0	
Missing	System	7	6.3		
Total		112	100.0		

Table 2.

Statistics

Using SPSS, correlations were determined for “ethical climate” and “job satisfaction”, and “male” (1) and “female” (2) genders. The former demonstrated a very strongly significant correlation ( $r=.38$ ,  $p<0.001$ ), while the latter did not demonstrate a significant difference after the  $r$  scores were converted to  $z$  scores ( $G1=.41$ ,  $G2=.32$ ) and those differences were compared. Further there was no significant difference between genders when comparing to scores on either job satisfaction or ethical climate.

### Correlations

#### Job satisfaction and ethical climate

		Job Satisfaction	Ethical Climate
Job Satisfaction	Pearson Correlation	1	.368**
	Sig. (2-tailed)		<.001
	N	112	84
Ethical Climate	Pearson Correlation	.368**	1
	Sig. (2-tailed)	<.001	
	N	84	84
** Correlation is significant at the 0.01 level (2-tailed).			

Table 3.

### Independent Samples

#### Ethical climate and job satisfaction

	Levene's Test for Equality of Variances				
	F	Sig.	t	df	Sig. (2-tailed)
Ethical Climate	0.555	0.458	-0.557	110	0.578
			-0.540	73.612	0.591
Job Satisfaction	0.864	0.355	-0.961	110	0.339
			-0.946	77.171	0.347

Table 4.

Experience was split into two categories, 1 = “less experienced” (<20 years) and 2 = “more experienced” (>20 years). “Less experienced” (1);  $r = .20$ ,  $p = .159$ ,  $n = 50$ , “More experienced” (2);  $r = .53$ ,  $p < .001$ ,  $n = 61$ . The  $r$ ’s were converted to z scores ( $G1 = .2$ ,  $G2 = .59$ ) and compared the adjusted difference.  $Z(\text{difference}) = 0.39$ ,  $p < 0.05$  and therefore there is a significant difference between less experienced (1) and more experienced (2).

We split age into 2 categories, 1= “younger” (< 47 years old) and 2 = “older” ( $\geq 47$ ) then ran a correlation for each group: “younger” (1);  $r = .24$ ,  $p = .238$ ,  $n = 48$ , “older” (2);  $r = .46$ ,  $p < .001$ ,  $n = 64$ . We then changed both  $r$ ’s to z scores ( $G1 = .24$ ,  $G2 = .50$ ) and compared the adjusted difference.  $Z(\text{difference}) = .26$ ,  $p > 0.05$  and therefore there is not a significant difference between “younger” (1) and older (2). There was no significant difference between “High” (10) or “Low” (0 and 5) pressure, and job satisfaction.

Independent Samples Test  
Pressure and Job Satisfaction

	Levene's Test for Equality of Variances				
	F	Sig.	T	Df	Sig. (2-tailed)
Job Satisfaction	2.580	0.111	1.845	103	0.068
			1.798	85.680	0.076

Table 5.



Independent Samples Test  
For Gender and Job Satisfaction

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Job Satisfaction	0.864	0.355	-0.961	110	0.339
			-0.946	77.171	0.347

Table 6.

Independent Samples Test  
For “experience less”/“experience more” and job satisfaction

	Levene's Test for Equality of Variances				
	F	Sig.	t	df	Sig. (2-tailed)
Job Satisfaction	2.483	0.118	-1.731	109	0.086
			-1.688	90.994	0.095

Table 7.

Independent Samples Test

For age “young”/“old” and job satisfaction

Levene's Test for Equality of Variances					
	F	Sig.	t	df	Sig.
Job satisfaction	0.374	0.542	-1.075	110	0.285
			-1.060	95.961	0.292

Table 8.

## DISCUSSION

The purpose of this study was to determine whether or not poor ethics or ethical climate causes lower job satisfaction. Inherently lower job satisfaction is related to increased stress and subsequent worker illness, absenteeism, musculoskeletal injury and burnout (Escriba-aguir, 2006., Hakanen, 2007., De Croon, 2004., Kivimaki, 2006. Vitell SJ, & Davis DL; 1990). Participants taking the survey seemed to identify “Billing practices” and billing being unethical to lower job satisfaction. Addressing causes of job dissatisfaction will provide clinicians with an opportunity to have a healthier work life.

In this study we used a survey completed by physical therapists from all across the country spanning all age groups, settings, and experience levels. The survey consisted of demographic questions, ethical questions, a job satisfaction scale, and an ethical climate survey completed by 112 participants. The single linear model determined “Billing practices”, “Level of Pressure”, and ethical climate survey where significant. Further investigation used the multiple linear regression model to adjust for the other significant variables revealed that “billing practices” question was significant with the job satisfaction survey. This indicates that “unethical billing” (from the statement “Billing practices is most likely associated with lower job satisfaction. Further, it should not be ignored that “Billing practices”, “Level of pressure”, and the ethical climate survey as combined variables have a significant association with job satisfaction.

To date, there are no studies in the literature that examine the affects of ethics or ethical climate on job satisfaction of physical therapists. Only one similar article was found and it

included MIS (Management Information System) professionals, which concluded that those professionals reported increased job satisfaction when management emphasized appropriate ethical behavior (Vitell SJ, & Davis; 1990). Which is in line with the current study.

The main limitation of the study was method of efficient disbursement of the survey and subsequent sample size. Disbursement was not efficient because it is difficult to locate contact information of physical therapists. The APTA has a listing of physical therapists and contact information, but they prohibit its use for solicitation, therefore manually searching facilities across the US was employed. When the aforementioned method was attempted the result was underwhelming and approval by the IRB was given to advertise the informed consent over Facebook. In the end the sample size was relatively small at 112. It could also be surmised that the sample size lacked randomization because it assumes that all physical therapists either have an email address (that they check) and they utilize Facebook.

Further studies need to be performed to examine ethics and ethical climate and how it affects job satisfaction. Reproduction of the current study with a larger sample population may show stronger or more meaningful relationships with similar variables, or another study that examines specific settings may provide stronger relationships than found in the current study. It is recommended that if a similar study were to occur the authors should identify a more efficient method of survey dispersal. Such as, contacting universities with physical therapy programs that might disseminate the survey to their alumni. Conversely, if more efficient methods of dispersal are not attained, then the prospective study should be performed over a larger time frame than the 9 months for the current study.

Unquestionably, ethics affects job satisfaction and the current study provides a glimpse of that. This study provides a springboard for further discussion and research on how physical

therapy facilities can improve job satisfaction through examination of the ethical climate. Hence reducing absenteeism, burnout, injury, and illness of clinicians while at the same time improving the care provided to patients.

## CONCLUSION

The intent of the current study was to examine the relationship that job satisfaction has with ethics or ethical climate. To date, there are no studies in the literature that examine the affects of ethics or ethical climate on job satisfaction of physical therapists. This study was able to discern a strong correlation between job satisfaction and ethical climate. Additionally, there was a significant difference between less experienced clinicians and their more experienced counterparts, and job satisfaction. A better understanding on how job satisfaction is affected by ethics or ethical climate is necessary to create a healthy work environment.

## REFERENCES

- APTA (06/13/2022)  
<https://www.apta.org/contentassets/5997bfa5c8504df789fe4f1c01a717eb/apta-workforce-analysis-2020.pdf>
- Adetoyeje Y. Oyeyemi (2001) Job satisfaction traits of Nigerian physical therapists, *Physiotherapy Theory and Practice*, 17:4, 257-268, DOI:[10.1080/095939801753385753](https://doi.org/10.1080/095939801753385753).
- Agheli R, Roshangar F, Parvan K, Sarbakhsh P, & Shafeh S. Work Stress and Organizational Citizenship Behaviors Among Nurses. *Annals of Tropical Medicine and Public Health*. 2017;10;6:1-10.
- Ahola K, Hakanen J. Job strain, burnout, and depressive symptoms: a prospective study among dentists. *J Affect Disord*. 2007;104:103–110.
- Aziri B., Job Satisfaction: A Literature Review. *Management Research and Practice*. December 2011; 3(4). 77-86.
- Balogun JA; Titiloye V; Balogun A; Oyeyemi A; Katz J; *Journal of Allied Health*, 2002 Fall; 31(3): 131-139. 9p.
- Basu E, Pradhan R.K., & Tewari R, Impact of Organizational Citizenship Behavior on Job Performance in Indian Healthcare Industries: The Mediating Role of Social Capital. *International Journal of Productivity and Performance Management*. 2017;66;6
- Bennett LE, Jewell VD, Scheirton L, McCarthy M, & Muir BC, *ScholarWorks Vol. 7*(Iss. 4(2019)). <https://leader.pubs.asha.org/doi/full/10.1044/leader.FMP.23092018.6>
- Bigelow, D. A., McFarland, B. H., & Olson, M. M. (1991). Quality of life of community mental health program clients: Validating a measure. *Community Mental Health Journal*, 27, 43-55.
- Blau R, Bolus S, Carolan T, et al. The experience of providing physical therapy in a changing health care environment. *Phys Ther*. 2002;82:648–657.
- Bowling N, Hammond G.D. A meta-analytic examination of the construct validity of the Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale. *Journal of Vocational Behavior*. 2008. 73;1:63-77
- Bronson J.W. The Ethical Climate Questionnaire: An Assessment of Its Development and Validity. *Psychological Reports*. 1993; 73: 667-674.

- Broom JP, Williams J. Occupational stress and neurological rehabilitation physiother- apists. *Physiotherapy*. 1996;82:606–614.
- Brown T.A, Chorpita B.F, Korotitsch W., & Barlow D.H. Psychometric Properties of the Depression Anxiety Stress Scales (DASS) In Clinical Samples. *Behav. Res. Ther.* 1997. 35:1;79-89
- Brumfield J. Patient focused care. *PT Magazine*. 1994;2(9):76 – 85.
- Bruno Corrado, Benedetto Giardulli, Massimo Costa. (2020) Evidence-Based Practice in Rehabilitation of Myasthenia Gravis. A Systematic Review of the Literature. *Journal of Functional Morphology and Kinesiology* 5:4, pages 71.
- Butarbutar I, Sendjaya S, Hartel C., The Mediating Effects of Ethical Climate on the Relationship between Servant Leadership and Organizational Citizenship Behaviour. *Anzam*. 2010 1-22
- Campo MA, Weiser S, Koenig K,. Job Strain in Physical Therapists. *Physical Therapy*. 2009;89:9 946-956.
- Center for Disease Control (CDC). Health-Related Quality of Life (HRQOL). Available from: <https://www.cdc.gov/hrqol/index.htm>. Accessed 11 Jan. 2017.
- Chu C.I., Lee M.S., & Hsu H.M. The Impact of Social Support and Job Stress on Public Health Nurses' Organizational Citizen Behaviors in Rural Taiwan. *Public Health Nursing*. 2006;23:6:496-505.
- Corley MC, Minick P, Elswick RK, & Jacobs M. Nurse moral distress and ethical work environment. *Nursing ethics*. Sage Publication. 2005;12(4)
- Data USA: Physical Therapists (06/13/2022) <https://datausa.io/profile/soc/physical-therapists>
- Davis M.A., Anderson M.G., & Curtis M.B. Measuring Ethical Ideology in Business Ethics: A Critical Analysis of the Ethics Position Questionnaire. *Journal of Business Ethics*. 2001;32:35-53.
- de Croon EM, Sluiter JK, Blonk RW, et al. Stressful work, psychological job strain, and turnover: a 2-year prospective cohort study of truck drivers. *J Appl Psychol*. 2004;89:442– 454.
- Deckard GJ, Present RM. Impact of role stress on physical therapists 'emotional and physical well-being. *Phys Ther*. 1989; 69:713–718.
- Deal TE, Kennedy AA: Corporate cultures: The rites and rituals of corporate life Perseus Publishing, Cambridge, MA, USA; 2000.



- Donohoe, Eileen, et al. "Factors associated with burnout of physical therapists in Massachusetts rehabilitation hospitals." *Physical Therapy*, vol. 73, no. 11, 1993, p. 750+.
- Gale Academic OneFile select, link.gale.com/apps /doc/A14674782/EAIM? u=tusc49521&sid=EAIM&xid=ca818768. Accessed 12 Jan. 2021.
- Escriba-Aguir V, Martin-Baena D, Perez- Hoyos S. Psychosocial work environment and burnout among emergency medical and nursing staff. *Int Arch Occup Environ Health*. 2006;80:127–133.
- Fontana, D. *Managing Stress*, Routledge, London. 1989:3
- Forsyth D.R. & Pope W.R. Ethical Ideology and Judgments of Social Psychological Research: Multidimensional Analysis', *Journal of Personality and Social Psychology*. 1984;46:1365-1375.
- Gelinas LS, Manthey M. Improving patient outcomes through system change: a focus on the changing roles of healthcare executives. *J Nurs Adm*. 1995;25(5):55– 63.
- Ghaderi A, Malek F, Mohammadi M, Maskopi SR, Hamta A, Madani SA., Adherence to Principles of Medical Ethics Among Physicians in Mazandaran Province, Iran. *Arch Iran Med*. January 2018;21(1):19-25.
- Gharakhani D, & Zaferanchi A. The Effect of Job Burnout on Turnover Intention with Regard to the Mediating Role of Job Satisfaction. *Journal of Health*. 2019;10;1:109-117.
- Hall, D. T. (1998) Protean careers of the 21st century. *Academy of Management Executive*, 10, 4–15.
- Head J, Kivimaki M, Martikainen P, et al. Influence of change in psychosocial work characteristics on sickness absence: the Whitehall II Study. *J Epidemiol Community Health*. 2006;60:55–61.
- Kang SW, Byun Gukdo, Park HJ, Leader-Follower Value Congruence In Social Responsibility and Ethical Satisfaction: A Polynomial Regression Analysis. *Psychological Reports: Employment Psychology & Marketing* 2014, 115,3,725-740,
- Karasek R, Theorell T. *Healthy Work: Stress, Productivity and the Reconstruction of the Working Life*. New York, NY: Basic Books; 1990.
- Kim J-H, Kim A-R, Kim M-G, Kim C-H, Lee K-H, Park D, Hwang J-M. Burnout Syndrome and Work-Related Stress in Physical and Occupational Therapists Working in Different Types of Hospitals: Which Group Is the Most Vulnerable? *International Journal of Environmental Research and Public Health*. 2020; 17(14):5001.
- Kinneman MT, Hitchings KS, Bryan YE, et al. A pragmatic approach to measuring and evaluating hospital restructuring efforts. *J Nurs Adm*. 1997;27(7/8):33– 41.

- Koehn ML, Miller P, Rinder E, Pace K, Elliot C, Bradley K, Boyle D, & Dunton N., The NDNQI-Adapted Index of Work Satisfaction. *Journal of Nursing Measurement*. 2004. 12;2:101-22.
- Klein AK, Rudolph CW, Zacher. Thriving at work: A meta-analysis. *Journal of Organizational Behavior*. 2019. 40; 9-10;973-999.
- Kota M, Kudo H, & Okita K. 2018. P. 563-566 <https://doi.org/10.1589/jpts.30.563>  
Accessed September 1, 2020.
- Kristof, A.L. (1996). Person-organization fit: An integrative review of its conceptualisations, measurement, and implications. *Personnel Psychology*, 49, 1–49.
- Leiter, M. P., & Maslach, C. (2005). *Banishing burnout: Six strategies for improving your relationship with work*. San Francisco: Jossey-Bass.
- Marchington, M., Wilkinson, A., Ackers, P. and Goodman, J. (1994), “Understanding the meaning of participation: views from the workplace”, *Human Relations*, Vol. 47 No. 8, pp. 867-894.
- Mcauley J.H. The Depression Anxiety Stress Scale (DASS). *Journal of Physiotherapy*. 2010;56:204.
- Mehta S, & Hardeep C. Antecedents and Consequences of Organizational Citizen Behavior (OCB): A Conceptual Framework in Reference to Health Care Sector. *Journal of Services Research*. 2011: 10;2;25-44.
- Mohammadi A, Sarhanggi F, Ebadi A, Daneshmandi M, Reisisfar A, Amiri F. Relationship between psychological problems and quality of work life of intensive care units nurses. *Iran J Crit Care Nurs* 2011;4:135-40.
- Netemeyer, R. G., Boles, J. S., McKee, D. O. & McMurrian, R. (1997). An investigation into the antecedents of organizational citizenship behaviors in a personal selling context. *Journal of Marketing*, 85-98.
- Noh, S., and C. Beggs. 1993. "Job Turnover and Regional Attrition Among Physiotherapists in Northern Ontario." *Physiotherapy Canada* 45 (4): 239-44.
- Okerlund, V. W., P. B. Jackson, and R. J. Parsons. 1994. "Factors Affecting Recruitment of Physical Therapy Personnel in Utah." *Physical Therapy* 74 (2): 177-84.
- Olson L.L. Hospital nurses' perceptions of the ethical climate of their work setting. *Image Journal of Nursing Scholarship*. 1998;30:345-349.
- Pantik S.A.B, Rajab A, Shaari R, Shah I.M, Rahman H.A, & Badri S.K.B. Impact of Work-related Stress on Well-being among Academician in Malaysian Research University. *International Conference on Education and Management Innovation*. 2012;30:37-41.

- Park JR, Coombs CR, Wilkinson AJ, et al. Attractiveness of physiotherapy in the National Health Service as a career choice: qualitative study. *Physiotherapy*. 2003;89: 575–583.
- Parker, S.K. (2003), “Longitudinal effects of lean production on employee outcomes and the mediating of work characteristics”, *Journal of Applied Psychology*, Vol. 88 No. 4, pp. 620-634.
- Pincus JD, Knip JE, Rayfield RE., International communication and job satisfaction revisited: The impact fo organizational trust and influence on commercial bank supervisors. *Journal of Public Relations Research*, 1990; 2(1), 173-191.
- Perry L, Xu X, Duffield C, Gallagher R, Nicholls R, Sibbritt D. Health, workforce characteristics, quality of life and intention to leave: The “fit for the future” survey of Australian nurses and midwives. *J Adv Nurs* 2017;73:2745-56.
- Pugliesi K., The consequences of emotional labor: Effects on work stress, job satisfaction, and well-being. *Motivation and Emotion*. 1999; 23(2),125-154.
- Richardson R., Ethical issues in physical therapy. *Current Reviews in Musculoskeletal Medicine*. Springer. 2015;8(2) 118-21.
- Robert, C., Probst, T.M., Martocchio, J.J., Drasgow, F. and Lawler, J.J. (2000), “Empowerment and continuous improvement in the United States, Mexico, Poland, and India: predicting fit on the basis of the dimensions of power distance and individualism”, *Journal of Applied Psychology*, Vol. 85 No. 5, pp. 643-658.
- Schuster ND, Nelson DL, Quisling C. Burn- out among physical therapists. *Phys Ther*. 1984;64:299 –303.
- Silverman HJ., *Organizational Ethics In Healthcare Organizations: Proactively Managing The Ethical Climate To Ensure Organizational Integrity*. HEC FORUM. 2000; 12(3):202-215.
- Smith, P. C., Kendall, L., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes*. Chicago: Rand McNally
- Speakman HGB, Pleasant JM, & Sutton GB. The Job Satisfaction of Physical Therapists. *Physiotherapy Research*. Nov. 1996 <https://doi.org/10.1002/pri.68> Date accessed 04/08/2020

- Trevino L.J., Egri C.P., Ralston D.A., Naoumova I, Li Y, Darder F.L., De La Garza Carranza M.T. & Furrer O. A Cross-Cultural Examination of Person-Organization Fit: Is P-O Fit Congruent with or Contingent on Societal Values? *Management International Review*. 2020;60:286-314.
- Trevino LK, Nelson KA: *Managing business ethics: Straight talk about how to do it right*. 2 edition. John Wiley & Sons, Inc., New York, NY; 1999.
- Valentine S, Godkin L, Fleischman GM, Kidwell R,. *Corporate Ethical Values, Group Creativity, Job Satisfaction and Turnover Intention: The Impact of Work Context on Work Response*. *Journal of Business Ethics*. 2011;98: 353-372
- Vitell SJ, Davis DL., *The Relationship Between Ethics and Job Satisfaction: An Empirical Investigation*. *Journal of Business Ethics*. 1990; 9: 489-494
- Wade GH, Osgood B, Avino K, Bucher G, Bucher L, Foraker T, French D, Sirkowski C: *Influence of organizational characteristics and caring attributes of managers on nurses ' job enjoyment*. *Journal of Advanced Nursing* 2008, 64(4):344-53.
- Wait-Tong C, Sin-Yin Y. *An Investigation of Nurses' Job Satisfaction in a Private Hospital and Its Correlates*. *The Open Nursing Journal*. CrossMark. 2016;10:99-112.
- Wandling BJ, Smith BS. *Burnout in orthopaedic physical therapists*. *Journal of Orthopaedic & Sports Physical Therapy*. 1997 Sep;26(3):124-130.
- Woods EN. *What does it mean for physical therapy?* *PT Magazine*. 1994;2(6):34 – 41.
- Zambo Anderson E, Gould-Fogerite, Pratt C, & Perlman A. *Identifying Stress and Burnout in Physical Therapists*. *Physiotherapy*. May 2015:101;1712.

## APPENDIX A: INFORMED CONSENT EMAIL

Dear Physical Therapist or Physical Therapist Assistant,

My name is Chris Cox, and I am conducting a research study that explores associations between organizations and job satisfaction in outpatient physical therapists. If you agree, you are invited to participate in the online survey.

The survey is anticipated to take no more than 30 minutes.

Participation in this study is voluntary. Your identity as a participant will remain anonymous during and after the study. The survey is conducted through qualtrics which denies the investigator access to the identity of any participant in the study.

If you have any questions please contact Chris Cox at 405.881.1776 or email [ccox6@crimson.ua.edu](mailto:ccox6@crimson.ua.edu) or Dr. John Higginbotham at 205.348.7259 or email [jhigginb@ua.edu](mailto:jhigginb@ua.edu)

If you would like to participate, please go to the following link:

[https://universityofalabama.az1.qualtrics.com/jfe/form/SV\\_3C0BcRoLJCpQ9A9](https://universityofalabama.az1.qualtrics.com/jfe/form/SV_3C0BcRoLJCpQ9A9)

Thank you for your participation,

Chris Cox  
University of Alabama

APPENDIX B: MOAQ-JSS

<p><b>How do you feel about your job?</b></p>	<p>Disagree very much</p> <p>Disagree moderately</p> <p>Disagree slightly</p> <p>Agree slightly</p> <p>Agree moderately</p> <p>Agree very much</p>					
<p>68. In general, I don't like my job.</p>	1	2	3	4	5	6
<p>69. All in all, I am satisfied with my job.</p>	1	2	3	4	5	6
<p>70. In general, I like working here.</p>	1	2	3	4	5	6

APPENDIX C: IRB APPROVAL

THE UNIVERSITY OF ALABAMA® | Office of the Vice President for Research & Economic Development  
Office for Research Compliance

December 11, 2020

Chris Cox  
Department of Institute for Rural Research  
College of Community Health Science  
Box 870326

Re: IRB # 20-03-3406: "Productivity and the relationship between job satisfaction and personal ethics in Physical Therapy Practice"

Dear Mr. Cox,


The University of Alabama Institutional Review Board has granted approval for your proposed research. Your application has been given exempt approval according to 45 CFR part 46. Approval has been given under exempt review category 2 as outlined below:

*(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:*

*(i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.*

The approval for your application will lapse on December 10, 2021. If your research will continue beyond this date, please submit the annual report to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Sincerely,



Carpantato T. Myles, MSM, CIM, CIP  
Director & Research Compliance Officer



Jessup Building | Box 870127 | Tuscaloosa, AL 35487-0127  
205-348-8461 | Fax 205-348-7189 | Toll Free 1-877-820-3066