

ABSTRACT

THOMAS, CAROL DEANA. The Relationship of Motivational Factors, Peer Support, and Transfer of Finance Training in Nurse Managers Working in Acute Care Hospital Settings. (Under the direction of committee chair Timothy Hatcher.)

The purpose of this study was to explore the effect of online finance training in acute care nurse managers in relation to motivational factors (Motivation to Transfer, Self-efficacy, Transfer Effort – Performance Expectations, Performance – Outcomes Expectations, and Learner Readiness) and Peer Support. A secondary purpose of the study was to explore the relationship between these same factors, education (degree or certification in finance, business, or administration) and number of years in present position after completing training. Results showed a significant difference in two factors (Transfer Effort – Performance Expectations and Performance – Outcomes Expectations) between nurses completing the online finance training versus nurse managers completing other training. In addition, Self-efficacy was significantly different between nurse managers with prior education and those without prior education. Limitations included a small sample size (139) limiting the results to the participants in the study and non-randomization of nurse managers to each group (managers completing provided finance training and managers completing other training).

The Relationship of Motivational Factors, Peer Support, and Transfer of Finance Training in
Nurse Managers Working in Acute Care Hospital Settings

by
Carol Deana Thomas

A dissertation submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Doctor of Education

Adult and Community College Education

Raleigh, North Carolina

2011

APPROVED BY:

Timothy Hatcher
Committee Chair

Julia Storberg-Walker

James Bartlett

Brad Melhenbacher

S. Bartholomew Craig

BIOGRAPHY

Carol Deana Kivett Thomas is presently the Education Director for Randolph Hospital in Asheboro, North Carolina (U.S.). Previous education includes Bachelors and Masters Degrees in nursing from the University of North Carolina –Greensboro. Work experience includes: staff nursing (medical, telemetry, and oncology), leadership roles (home health, outpatient endoscopy, long-term care, and education), and other roles (Clinical Nurse Specialist, consultant, and trainer). Research interests include nursing leadership and motivation to transfer training.

ACKNOWLEDGEMENTS

The completion of this degree could not have occurred without the Lord Jesus Christ who has been my constant companion during this journey. When no one else understood what I was going through or needed, He did.

Others

I want to thank my husband and daughter for their patience, love and understanding through the last seven and a half years. There were many times their needs were put on hold for me to pursue my desire for a terminal degree.

Dad and mom: how can I thank you enough for always believing in me. Even if I had not have been successful in the completion of this journey you would have still supported me and been proud of me.

Other family always supporting me include: Toni, John, Marty, Ashley, and Matthew.

TABLE OF CONTENTS

LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER I: INTRODUCTION.....	1
Introduction.....	1
Definitions.....	3
Transfer of Training	4
Nursing Leadership.....	4
Significant Variables in Transfer of Training.....	7
Motivation to Transfer	7
Transfer Effort–Performance Expectations and Performance–Outcomes Expectations.....	8
Self-efficacy	8
Learner Readiness.....	8
Peer Support.....	9
Measurement of Transfer of Training.....	9
Self-report	10
Timeframes Used for Transfer of Training Measurement.....	10
Measures	10
Motivation Theories and Theoretical Framework	12
Lewin’s Field Theory.....	12
Bandura’s Social Cognitive Theory of Self-Regulation	13
Vroom’s Expectancy Theory	14
Problem Statement.....	15
Purpose of the Study	17
Research Questions and Null Hypotheses	18
Research Question 1	18
Null Hypothesis 1	18
Research Question 2	18
Null Hypothesis 2	18
Conceptual Framework.....	19
Significance of Study.....	21
CHAPTER II: LITERATURE REVIEW	23
Introduction.....	24
Transfer of Training.....	25
Nursing Leadership.....	25
Motivation Theories and Theoretical Framework	28
Motivation Research	28
Lewin’s Field Theory.....	29
Bandura’s Social Cognitive Theory of Self-Regulation	30
Vroom’s Expectancy Theory	33
Use of Theory in Present Study	36

Motivation to Transfer—Significant Variables	36
Motivation to Transfer	38
Transfer Effort—Performance Expectations and Performance—Outcomes	
Expectations	38
Self-efficacy	39
Learner Readiness	40
Peer Support	40
Measurement of Transfer	41
Timeframes Used for Transfer of Training Measurement	41
Measurement Tools	42
Previous Studies of Transfer of Training in Nurse Managers	44
Basis for Present Study	51
Summary	52
CHAPTER III: RESEARCH METHODS	55
Introduction	55
Research Design	56
Research Question 1	57
Null Hypothesis 1	57
Research Question 2	58
Null Hypothesis 2	58
Conceptual Framework	58
Transfer as a Research Construct and Its Measurement of Training	61
Procedures	61
Population and Sample	62
Measures and Instrumentation	64
Data Collection	68
Data Analysis	71
Outliers	72
Normality of the Variable Distributions	72
Homogeneity of Variance	73
Linearity	74
Statistical Power	74
Reliability	74
Research Question 1	75
Null Hypothesis 1	75
Research Question 2	76
Null Hypothesis 2	76
Limitations	78
CHAPTER IV: RESULTS	79
Demographic Data	79
Internal Reliability: Cronbach’s Coefficient Alpha	80
Data Analysis and Results of Research Questions and Null Hypotheses	82
Research Question 1	82

Null Hypothesis 1	82
Research Question 2	85
Null Hypothesis 2	85
Summary of Results	87
CHAPTER V: FINDINGS, DISCUSSION, AND IMPLICATIONS	88
Research Findings	88
Research Question 1	89
Null Hypothesis 1	89
Research Question 2	91
Null Hypothesis 2	91
Implications for Research and Practice.....	93
Limitations	94
Recommendations for Future Research	95
REFERENCES	96
APPENDICES	105
Appendix A: IRB Approval by NCSU	106
Appendix B: Letter to Senior Nurse Leaders.....	107
Appendix C: NCSU Informed Consent Form (Senior Nurse Manager).....	108
Appendix D: Letter to Nurse Managers.....	110
Appendix E: NCSU Informed Consent Form (Nurse Manager)	111
Appendix F: Learning Transfer System Inventory Survey Questionnaire	113
Appendix G: Emails to Study Participants	115

LIST OF TABLES

Table 3.1	Table of Demographics.....	64
Table 3.2	Table of LTSI Scale Details.....	67
Table 3.3	Table of Other Variables (dependent and covariant).....	68
Table 3.4	Table of Box Cox Transformed Variables (normality of distribution).....	72
Table 3.5	Table of Box Cox Transformed Variables (homogeneity of variance)	73
Table 4.1	Table of Participant Demographics	79
Table 4.2	Table of LTSI Scale Details.....	81
Table 4.3	Table of Descriptive Statistics	84
Table 4.4	Table of Performance and Transfer Effort Dependent Variables	85
Table 4.5	Table of Self-efficacy and Education	86

LIST OF FIGURES

Figure 1.1	Bandura's Social Cognitive Theory Triadic Reciprocal Causation	13
Figure 1.2	Conceptual Framework	20
Figure 2.1	Literature Concept Map	24
Figure 2.2	Vroom's Model	33
Figure 3.1	Study Design	57
Figure 3.2	Conceptual Framework	60
Figure 3.3	Correlation Matrix	77

CHAPTER I: INTRODUCTION

This chapter will describe transfer of training and significant variables related to transfer of training: motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support. In acute care hospital settings, nurse managers are required to develop and manage one or more operational budgets. Management of the operational budget includes staying within predetermined parameters for each subaccount and within the budget as a whole, throughout the year as measured monthly. The difference between what was budgeted and what was actually spent is called a budget variance. The manager’s performance is measured by comparing the actual variance against a threshold set by the organization. This variance is the predetermined parameter used to measure the manager’s success or lack thereof in keeping within budgetary guidelines as delineated by the organization. This paper will describe the relationship of motivational factors, peer support, transfer of finance training in nurse managers working in acute care hospital settings, and instruments used to measure transfer of training in the work setting. Timeframes for measurement of transfer and some of the significant variables will be delineated. This exploratory study uses a quasi-experimental design and theoretical and conceptual frameworks. The problem statement, purpose statement, and the significance of the study are also described.

Introduction

According to Patel (2010), in 2009 the average United States employer spent an estimated 2.14 percent of its payroll on training. This comes to an estimated total of \$125.88 billion (Patel, 2010). Training and development was defined by Swanson and Holton (2001)

“as a process of systematically developing work-related knowledge and expertise in people for the purpose of improving performance” (p. 204). Training is focused on teaching new behaviors or changing existing behavior of individual participants (Goldstein & Gilliam, 1990). The hope is that by gaining knowledge and skills, employees will make changes that enhance their performance. This enhancement is thought to potentially assist the organization in remaining viable (Bates & Khasawneh, 2005). But, if the knowledge and skills learned in formal training are not transferred into the work setting, they are of minimal value to the organization (Danielson & Wiggenhorn, 2003; Swanson, 1996).

Transfer of training is a complex phenomenon composed of many variables, including trainee characteristics, training program design, learning environment, and work environment (Axtell, Maitlis, & Yearta, 1996; Baldwin & Ford, 1988; Chen & Ho, 2001; Foxon, 1993; Lim & Johnson, 2002). The literature has grouped transfer influences into three categories: trainee characteristics, training design, and work environment (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Holton, Bates, Bookter, & Yamkovenko, 2007; Kirwan & Birchall, 2006; Lim & Johnson, 2002; Noe, 1986). Over the years, researchers have added factors to each category. For example, Holton, Bates, and Ruona (2000) added *motivation to transfer*, *transfer effort–performance expectations*, and *performance–outcome expectations* to the trainee characteristics category and *peer support* to the motivation components located in the work environment category in Version III of the Learning System Transfer Inventory (LTSI). The LTSI is one of the most frequently used instruments to measure transfer of training. The instrument evolved from that proposed by Rouiller and Goldstein (1993).

Version III of the LTSI consists of 66 items. The items of interest for this study are in the motivational factors and also include peer support (environmental factor).

Definitions

The following terms are frequently used in this study.

Learner readiness – Extent to which individuals are prepared to enter, participate in, and profit from a training program (Holton et al., 2000).

Motivation to transfer – Direction, intensity, and persistence of effort toward utilizing in a work setting skills and knowledge learned in training. The extent to which individuals are motivated to utilize learning in their work (Holton et al., 2000).

Nurse Manager – Nurse with 24-hours-per-day and 7-days-per-week accountability and budgeting responsibility for one or more hospital nursing departments.

Peer support – Extent to which peers reinforce and support use of learning on-the-job (Holton et al., 2000).

Performance–outcomes expectations – Expectation that changes in job performance will lead to valued outcomes (Holton et al., 2000).

Performance self-efficacy – An individual’s general belief that he is able to change his performance when he wants to (Holton et al., 2000).

Transfer effort–performance expectations – Expectation that effort devoted to transferring learning will lead to changes in job performance (Holton et al., 2000).

Transfer of training – Transfer of knowledge, skills, and abilities from training into the work setting and maintaining it (Baldwin & Ford, 1988).

Transfer of Training

It is estimated that only 10% to 20% (Curry, Caplan, & Knuppel, 1994; Georgenson, 1982; Kaufman, 2002) of training actually transfers to the work setting when no efforts are made by the organization to enhance training transfer. Transfer of training has been defined as the transfer of knowledge, skills, and abilities from training into the work setting and then having the employee maintain it (Baldwin & Ford, 1988). Positive transfer of training is the degree to which trainees effectively apply to the job the knowledge, skills, and abilities gained in a training context (Newstrom, 1986; Wexley & Latham, 1981). According to Swanson and Holton (2001), “The goal of transfer is the full application of new knowledge and skills to improve individual and/or group performance in an organization or community” (p. 245). Organizations have devoted increased resources to training of their workforce in an effort to increase competitiveness and improve services (Holton & Baldwin, 2003). According to Danielson and Wiggenhorn (2003), learning professionals are faced with three fundamental challenges: aligning learning with business, organizing training programs for impact, and effecting real learning. Learning, no longer considered merely a necessary cost, is now considered a “weapon in the battle for competitive advantage” (Danielson & Wiggenhorn, 2003, p. 17).

Nursing Leadership

Healthcare providers also need a competitive advantage over other providers within their market. Nursing leaders are a key to the utilization of the bulk of the resources used. When they use resources wisely, it helps the organization remain competitive. These resources include staff (appropriate scheduling for cost containment while providing quality

care and decreasing length of stay) and patient supplies. The appropriate use of resources is evidenced in part by maintaining an operational budget within the designated variance parameters of the specific organization.

Research pertaining to transfer of training in nursing management is sparse, especially in U.S. research journals. Studies completed in the United States have not included training on budgeting or how motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support may affect budget-training transfer.

Mathena (2002) assessed education needs for continued professional development of nurse managers in the US. The study was designed to determine what skills nurse managers felt they needed to perform optimally as nursing leaders. Most of the nurses in the study had advanced nursing degrees and extensive managerial experience. Lack of time and resources were listed as major barriers to their professional development. According to Mathena (2002), the participants also felt, “They would benefit the greatest from additional education in the areas of financial management (specifically financial analysis, cost-benefit analysis, and financial projections) and technical skills (data mining and analysis)” (p. 141).

Most of the nursing-transfer studies have been completed in the United Kingdom (Milne et al., 2003), Australia (Duffield & Franks, 2001), and Canada (Gaudine & Saks, 2004). These countries differ from the United States primarily because their healthcare is socialized and less complex.

Budgeting in a hospital setting is very different from other business settings (Finkler, 1991). Due to the complexity of budgeting within a hospital setting, it is imperative that

nurse managers are knowledgeable and perform at the highest level possible in the development and maintenance of their budgets. When evaluating a specific department's budget variance, the nurse manager responsible for that department needs to understand the variance and be able to explain the reason for the variance to senior management. This includes suggesting how to correct the variance. The greatest costs in nursing departments are staff salaries and benefits, but these costs are also the hardest to control if the nurse manager is not knowledgeable of how to utilize staff efficiently.

Every year, millions of dollars are spent on leadership-training programs, including nurse management programs. Lauder, Reynolds, and Angus (1999) stated, "Transfer is a construct of enormous importance for nursing and has implications for both education and practice" (p. 485). With continually changing reimbursement contracts, technology, regulatory requirements, and staff-retention issues (turnover of experienced staff), training is instrumental in assisting nurse managers in meeting their management responsibilities.

Many nurse managers have clinical degrees but not administrative degrees or certifications in business. Clinical degrees focus on skill sets related to the care of patients in either a supportive role during acute and chronic illness or in a preventative role. Administrative, financial, or budgetary education is not routinely part of undergraduate nursing degree programs. Many variables such as trainee characteristics, training program design, and learning environment have been found to affect training transfer. However, motivation has been identified as a significant factor in transfer of training and may affect the transfer of training related to budgeting in nurse managers as well.

Significant Variables in Transfer of Training

Transfer of training is composed of many variables, including trainee characteristics, training program design, learning environment, and work environment (Axtell, Maitlis, & Yearta, 1996; Baldwin & Ford, 1988; Chen & Ho, 2001; Foxon, 1993; Lim & Johnson, 2002). Transfer influences have been identified throughout the transfer literature and organized into three categories: trainee characteristics, training design, and work environment (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Holton et al., 2007; Kirwan & Birchall, 2006; Lim & Johnson, 2002; Noe, 1986). Over the years, researchers have added factors to each category of influences on transfer of training. For example, Holton, Bates, and Ruona (2000) added motivation to transfer, transfer effort–performance expectations, and performance–outcome expectations to the trainee characteristics category and peer support to the work environment category in Version III of the Learning System Transfer Inventory (LTSI).

Motivation to Transfer

Motivation to transfer is a trainee characteristic (Axtell et al., 1996; Holton, 1996; Holton et al., 2007; Kirwan & Birchall, 2006). It is one of the most significant trainee characteristics related to transfer of training (Axtell et al., 1996; Baldwin & Ford, 1988; Burke & Hutchins, 2007; Chen & Ho, 2001; Elangovan & Karakowsky, 1999; Foxon, 1993; Kontoghiorghes, 2004; Lim & Johnson, 2002; Merriam & Leahy, 2005; Seyler, Holton, Bates, Burnett, & Carvalho, 1998; Yahgi, Goodman, Holton, & Bates, 2008). Motivation to transfer is defined as the direction, intensity, and persistence of effort made toward utilizing skills and knowledge learned in the work setting (Kirwan & Birchall, 2006; Noe, 1986).

Transfer Effort–Performance Expectations and Performance–Outcomes Expectations

Transfer effort–performance expectations and *performance–outcomes expectations* are used in the measurement of motivational factors, which are intended to measure transfer-related expectations and stem from Vroom's (1964) Expectancy Theory. Transfer effort–performance expectations is defined as “expectation that effort devoted to transferring learning will lead to changes in job performance” (Holton et al., 2007, p. 399). Performance–outcomes expectations is defined as “expectation that changes in job performance will lead to valued outcomes” (Holton et al., 2007, p. 399).

Self-efficacy

Self-efficacy is defined as a person’s belief in their capabilities to mobilize the motivation, cognitive resources, and action needed to exercise control over events in their lives and to accomplish desired goals (Wood & Bandura, 1989). People’s judgment of personal efficacy affects the choice of activities they will become involved in and the environments they choose to enter. Their self-beliefs of efficacy also determine their level of motivation and are reflected in the amount of effort they will exert and how long they will persevere.

Learner Readiness

One of the principles of Knowles’s adult learning theory is that adults enter the learning environment ready to learn (Knowles, 1984). This indicates that the learner enters the education event with preconceived ideas about learning from their past experience with education events. This readiness to learn, according to Knowles (1984), is often based on a situation that triggered a need to learn something new. It has been defined as the “extent to

which individuals are prepared to enter and participate in a training program” (Broucker, 2007). This includes knowing what to expect during the training and how the training is related to the job and their work performance.

Peer Support

Peer support, as a part of the work environment, is delineated as a significant factor affecting an individual’s motivation to transfer training to the work setting (Bates, Holton, Seyler, & Carvalho, 2000; Burke & Baldwin, 1999). Peer support involves peers' giving reinforcement to the trainee in the use of what has been learned in the work setting. It has been noted as one of the top factors with the highest correlation to learning transfer (Bates et. al., 2000; Burke & Hutchins, 2007; Cromwell & Kolb, 2002, 2004; Holton, Bates, Seyler, & Carvalho, 1997). Support from peers moderately affects pre-training motivation (Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995), but it significantly affected the perceived transfer of training (Xiao, 1996).

Measurement of Transfer of Training

Transfer of training has been measured in multiple ways, each dependent upon the training content and design. Some studies have limited this measurement to self-reported data on the trainee’s perception of their transfer back to the work setting (Baumgartel, Reynolds, & Pathan, 1984; Chiaburu & Marinova, 2005). Acquisition of knowledge and task-oriented skills are easier to measure than soft skills (e.g., communication, conflict resolution), due to the ability to obtain a score on a posttest or visualize a demonstration of task performance in the natural work environment. Task observations can be scheduled, whereas conflict-resolution skill is often demonstrated without an observer's being present.

Self-report

Self-report has been used to measure transfer of training and performance post-training as rated by the trainee in multiple transfer studies. According to Burke and Hutchins (2007), transfer studies conducted since Baldwin and Ford's (1988) transfer literature review have not used work settings as their data collection site. The present study used self-report because the participants work in multiple locations spread over two states. The LTSI was used as the tool for this study due to its ability to measure motivation to transfer factors and its being a self-report tool.

Timeframes Used for Transfer of Training Measurement

Variables related to transfer of training have been measured at various times: pre-training; immediately post-training; 30 and 60 days post-training; 3, 6, and 9 months post-training; and annually up to 2 years post-training (Chang, Sheen, Chang, & Lee, 2008; Heaven, Clegg, & Maguire, 2005; Milne, Gorenski, Westerman, Leck, & Keegan, 2000; Saks & Belcourt, 2006). Immediate post-training measures were used for the present study for the group completing the online finance/budget training. The control group varied in the timeframe for post-training. This study used multiple work settings across two states to collect data.

Measures

The Learning Transfer System Inventory (LTSI) is one of the most widely used measures of transfer of training. This instrument has been used to measure multiple categories of factors including motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner

readiness, and peer support) influencing transfer of training. The LTSI was developed by Elwood F. Holton, III and Reid A. Bates to measure transfer-inhibiting and -stimulating conditions (Broucker, 2007). Their 66-item instrument was adapted from Rouiller & Goldstein's (1993) instrument.

The third version of the LTSI consists of 16 factors that provide a comprehensive assessment of items that influence transfer of training (Holton & Baldwin, 2003). Of these factors, which were identified using factor analyses, 11 factors are focused on a well-specified program (supervisor support, transfer design, negative personal outcomes, personal capacity for transfer, learner readiness, perceived content validity, peer support, opportunity to use, motivation to transfer, supervisor sanction, positive personal outcomes), and 5 factors are more general and focus on educational programs in organizations (performance coaching, performance–outcomes expectations, performance self-efficacy, transfer effort–performances expectations, openness to change) (Broucker, 2007, p. 5).

In summary, interest in transfer of training continues to increase due to the amount of resources invested in training. Advances have been made in the identification of variables affecting transfer in the training design, trainee characteristics, and work environment categories. There still remain underexplored aspects of transfer of training in the work environment affecting nurse managers in hospital settings and their role in the operational budget process. Motivation to transfer, transfer effort–performance expectation, performance–outcomes expectations, self-efficacy, learner readiness, and peer support have been identified as significant variables affecting transfer of training. Nurse managers are important in the operation of any hospital, and how they manage operational budgets is key

in the financial success of the organization. Understanding how these factors affect transfer of training give an indication as to what interventions may be the most successful in assisting nurse managers in transferring training into the work setting. The theoretical foundation for motivation and transfer of training used in the present study is based on motivation-based theories.

Motivation Theories and Theoretical Framework

According to Ryan and Deci (2000), “Motivation has been a central and perennial issue in the field of psychology, for it is at the core of biological, cognitive, and social regulation. Perhaps more important, in the real world, motivation is highly valued because of its consequences: Motivation produces” (p. 69). Multiple theories have arisen to explain transfer of training, including Lewin’s Field Theory, Bandura’s Social Cognitive Theory, and Vroom’s Expectancy Theory. The last of these supports the present study. Motivation to transfer, transfer effort, performance–outcomes expectations, self-efficacy, learner readiness, and peer support are all of interest for the present study and are closely aligned with and supported by Vroom’s Expectancy Theory.

Lewin’s Field Theory

Lewin’s theory is a behavioralistic theory in which the “field” that influences an individual is described in the way in which it exists for that person at that specific time (Lewin, 1951). Field theory’s acceptance has been increasing in various fields of study, including psychology of motivation. According to Atkinson and Birch (1978), “No one has stated more clearly [than Lewin] how the individual case and the systematic principles of

motivation should, in principle, be related” (p. 231). This particular theory is the foundation for Vroom’s Expectancy Theory.

Bandura’s Social Cognitive Theory of Self-Regulation

Bandura’s theory is another primary theory in the transfer literature, due to the significance of self-efficacy on motivation to transfer and self-efficacy’s frequency of use in the transfer of training literature (Chiaburu & Marinova, 2005; Gaudine & Saks, 2004; Gist, Schwoerer, & Rosen, 1989; Harrison, Rainer, Hochwarter, & Thompson, 1997; Holladay & Quinones, 2003; Mathieu, Martineau, & Tannenbaum, 1993). This theory explains psychosocial functioning in terms of triadic reciprocal causation (see Figure 1.1) (Bandura, 1986; Wood & Bandura, 1989).

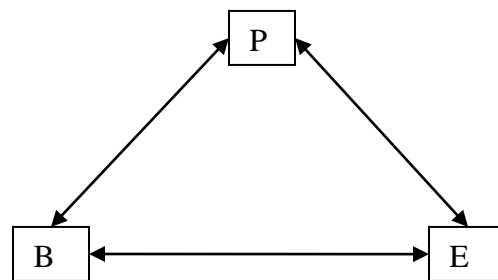


Figure 1.1 Bandura’s Social Cognitive Theory of Triadic Reciprocal Causation [Behavior (B), Cognitive and Personal Factors (P), and External Environment (E)].

The triadic relationship illustrated in Figure 1.1 does not indicate equal strength between the sources of influence, but does indicate a bidirectional influence for each pair of sources. Therefore, according to Wood and Bandura (1989), “People are both products and producers of their environment” (p. 362). Self-efficacy is one of the central mechanisms

defined by Bandura in the social cognitive theory of self-regulation (Bandura, 1986). Self-efficacy is defined as a person's belief in their capabilities to mobilize the motivation, cognitive resources, and action needed to exercise control over events in their lives and to accomplish desired goals (Wood & Bandura, 1989).

Vroom's Expectancy Theory

Vroom's theory was chosen as the theoretical framework for this study, due to its focus on motivation and its frequency of use in the motivation literature (Chiaburu & Marinova, 2005; Gaudine & Saks, 2004; Gist et al., 1989; Harrison et al., 1997; Holladay & Quinones, 2003; Mathieu, Martineau, & Tannenbaum, 1993). This theory was developed to explain almost all work-related behavior—from occupation choice to performance on the job. Vroom used Lewin's field theory in the development of the Expectancy Theory. Expectancy Theory argues that the strength of a tendency to act in a certain way depends on the strength of an expectation of a given outcome and the attractiveness of this outcome to the individual (Robbins, 1993). Vroom's theory assumes, "Choices made by a person among alternative courses of action are lawfully related to psychological events occurring contemporaneously with the behavior" (Vroom, 1964, p. 15). An individual's behavior results from their choices made. A literature review found at least four ways that this theory has supported research: peer support, opportunity to use, supervisory support, and motivation to transfer (Colquitt, Lepine, & Noe, 2000; Gegenfurtner, Festner, Gallenberger, Lehtinen, & Gruber, 2009). From the initial decision to attend a training session (if the participants are allowed to decide), to the final transfer of the training to the work setting, the individual learner must make multiple decisions regarding their level of involvement. Valence in this theory describes the

satisfaction from the outcome the individual feels they will gain from their efforts (Vroom, 1964).

In summary, the theories attempting to explain transfer of training cover a variety of perspectives including the training design, trainee characteristics, and work environment. Vroom's Expectancy Theory was chosen as the theoretical framework for this study due to its frequent use in transfer of training literature, as it relates to motivation to transfer. Motivation to transfer, transfer effort, performance–outcomes expectations, self-efficacy, learner readiness, and peer support are all of interest for the present study and are closely aligned with Vroom's Expectancy Theory.

Problem Statement

Transfer of training is necessary to build intellectual capital in organizations (Holton et al., 2007), and being able to determine how to enhance this process is very important for organizations to build upon their intellectual capital (Garavaglia, 1993). Even with numerous transfer of training studies completed, it is still felt by organization leadership that low transfer rates continue, giving less than acceptable deficient results (Burke & Hutchins, 2007).

Transfer of training helps organizations continue to be viable. Organizations have invested increased resources to train their workforce in an effort to increase competitiveness and improve services (Holton & Baldwin, 2003).

Although transfer of training literature is plentiful, few studies have analyzed transfer of training within hospitals to determine support for transfer (Holton et al., 2007). Most of the transfer literature in leadership training has focused on school personnel, training

personnel, automaker personnel, insurance-company personnel, military personnel, and managers in industrial settings (Axtell et al., 1996; Kontoghiorghes, 2001, 2004; Huczynski & Lewis, 1980; Naquin & Holton, 2003; Noe & Schmitt, 1986; Ruona, Leimbach, Holton, & Bates, 2002; Wexley & Baldwin, 1986). Nurse management transfer studies have predominantly been conducted outside the United States (Chang et al., 2008; Duffield & Franks, 2001; Franke, Garssen, & Abu-Saad, 1995; Gould, Kelly, Goldstone, & Maidwell, 2000), presenting the problem of context, due in part to the differences between socialized medicine and a free-market healthcare system. Payment schemes and reimbursement issues are much more complex in a free market like that of the US, due to the multitude of healthcare providers and payment plans available for the consumer. Although there are studies utilizing nurse managers as participants, they are very limited and not related to transfer of financial budgeting skills in the United States (Franke et al., 1995; Gaudine & Saks, 2004; Landers, 2000). Mathena (2002) pointed out the perceived need by nurse managers for continued professional development in finance. This leads to the perception of a gap between nurse managers' present knowledge in finance, and their need of further training in finance. This exploratory study attempted to decrease this gap in the transfer of training literature related to nurse managers in acute care hospital settings. This study examined the effect of motivation to transfer, transfer effort–performance expectations, performance–outcome expectations, self-efficacy, learner readiness, and peer support on transfer of training in nurse managers in acute care hospital settings. Variables of education (degree or certification in business, administration, or finance), and years of service in present position were also controlled for.

Education in finance or budgeting may potentially enhance a participant's ability to transfer these skills back into the work setting because of their prior knowledge. It is also felt that years of service in the present position would impact the transfer of finance skills, due to the participant's knowledge gained from past experience prior to training. This knowledge base is developed during repetitive budget development and working with operational budgets in the same setting over time. Controlling for these variables was necessary to determine their impact on perceived transfer of training.

Purpose of the Study

The purpose of this exploratory study was to explore the effect of online finance training on acute care nurse managers and the affect of motivational factors of motivation to transfer, self-efficacy, transfer effort–performance expectations, performance–outcomes expectations, learner readiness, and peer support. A secondary purpose of the study was to explore whether or not these same factors are strengthened by extent of education (degree or certification in finance, business, or administration) or number of years in the present position. An exploratory study was conducted using a quasi-experimental design with an experimental group (receiving online finance training provided by the researcher) and a control group (completing training of their own choice), prior to both groups' completing the LTSI questionnaire.

Research Questions and Null Hypotheses

Research Question 1

Is there a difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as delineated by the LTSI?

Null Hypothesis 1

There will be no difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as delineated by the LTSI.

Research Question 2

Is there a relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration?

Null Hypothesis 2

There will be no relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) of nurse managers in the

acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration.

Conceptual Framework

The conceptual framework for the study includes the following variables: motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support. Covariates include education and years in present position. Motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support were measured using the LTSI for all participants. The group of participants completing the online finance/budget training was self-selected based on their interest in completion of the training and the LTSI questionnaire that included questions pertaining to education and years in present position. This group comprised 59 participants. Following data collection from this group, those that opted not to complete the online finance/budget training for nurse managers were asked to participate in the study by completing the LTSI questionnaire based on their most recent learning event. This questionnaire also included questions pertaining to education and years in present position. The conceptual framework is illustrated in Figure 1.2.

Conceptual Framework

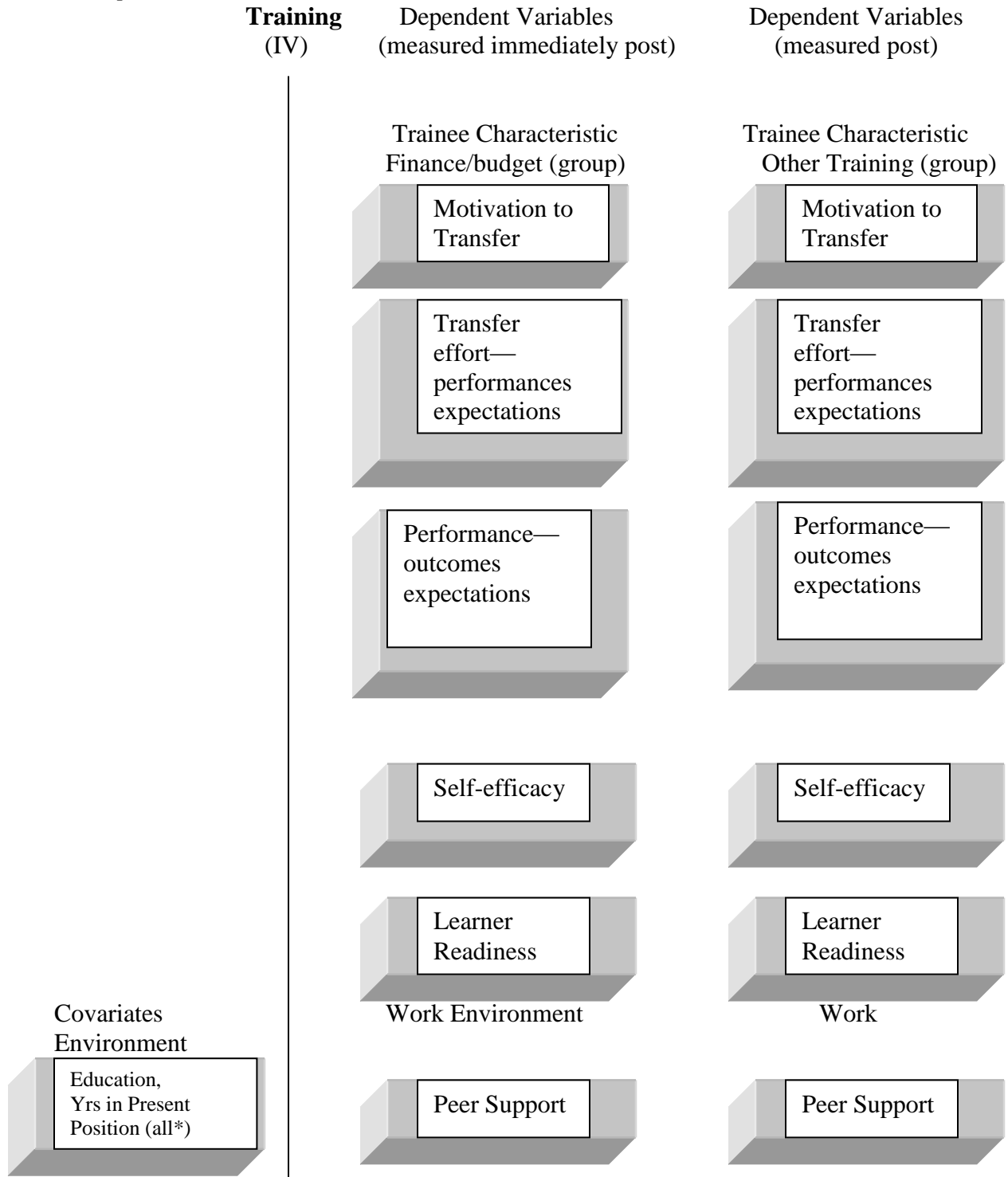


Figure 1.2 Conceptual Framework (all* – collect from all participants).

The design of this exploratory study is considered quasi-experimental since the participants completed a training intervention (either online finance training for nurse managers provided by the researcher or training they had completed recently on their own) and then completed the LTSI questionnaire post-training. The study explored motivation to transfer of online finance training in a context and population not studied in previous research, namely, nurse managers in acute care hospitals. The present research studied the difference in motivation to transfer finance training as measured by using the LTSI (motivational factors and peer support) post-training between the participants completing the online finance/budgeting training specifically for nurse managers versus the participants that completed other training of their own choice as described in Figure 1.2. The LTSI measures only post-training items, which constrained the questions in the research instrument used in the present study.

Significance of Study

Resource utilization in any organization is always scrutinized closely; doing more with less has become the "mantra" for many organizations. Hospitals also share this concern, especially regarding the amount spent on management development. Many of these formal training programs are developed and delivered in an effort to enhance the efficiency and effectiveness of nursing managers responsible for the bulk of the expenses and revenues. These individuals hold key positions in hospitals across the country and around the world, due to their proximity to the personnel delivering services to consumers, and to their responsibility to adhere to a strict financial budget.

There are transfer of training studies using nursing students and curriculum development, and nursing management transfer studies outside of the United States. Only Kirwan & Birchall (2006) was found to have addressed the topic of the affect of transfer of training in hospitals for nursing management development, but not specific to finance training. This study, conducted in Ireland, tested Holton and Bates's LTSI model.

With the decreased reimbursement and increased competition for customers and skilled employees, how nurse managers utilize limited financial resources is very important to hospital administrators. Therefore, trainers and researchers in the healthcare work environment should study factors that either enhance or inhibit the transfer of training in a healthcare context, especially in hospitals and among nurse managers.

CHAPTER II: LITERATURE REVIEW

This chapter describes the literature related to transfer of training, nursing leadership, and motivation. Motivational theories are described along with an explanation of how Vroom's Expectancy Theory supports the present study. Variables affecting transfer of training in the motivation to transfer literature will also be discussed. This chapter will also describe significant variables related to transfer of training: motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support. See Figure 2.1 for an illustration of the conceptual framework. It is assumed that training enhances knowledge and that knowledge can be synthesized and converted into a change in behavior, changing performance as the participant moves toward that end.

Transfer of training was defined by Baldwin and Ford (1988) as the transfer of knowledge, skills, and abilities from training into the work setting and the employee maintaining it over a period of time. Many research studies pertaining to transfer of training in nursing management have been completed outside of the United States. Few studies have examined transfer of training in nurse managers. Multiple motivation theories have been formulated to explain transfer of training, including Lewin's Field Theory, Bandura's Social Cognitive Theory, and Vroom's Expectancy Theory. Vroom's Expectancy Theory is frequently cited in the motivation literature and was chosen as the theoretical foundation for this study, due to its focus on work motivation (Chiaburu & Marinova, 2005; Gaudine & Saks, 2004). Motivation to transfer has been defined as the direction, intensity, and persistence of effort made toward utilizing skills and knowledge learned in the work setting

(Kirwan & Birchall, 2006; Noe, 1986). Motivation is a very difficult concept to measure. According to Wlodkowski (1999), “We cannot observe motivation directly nor measure it precisely, we can only infer it from what people say and do” (p. 1). The present study was conducted to help decrease the gap in the literature as it pertains to the transfer of finance training and motivational factors in nurse managers in acute care hospital settings.

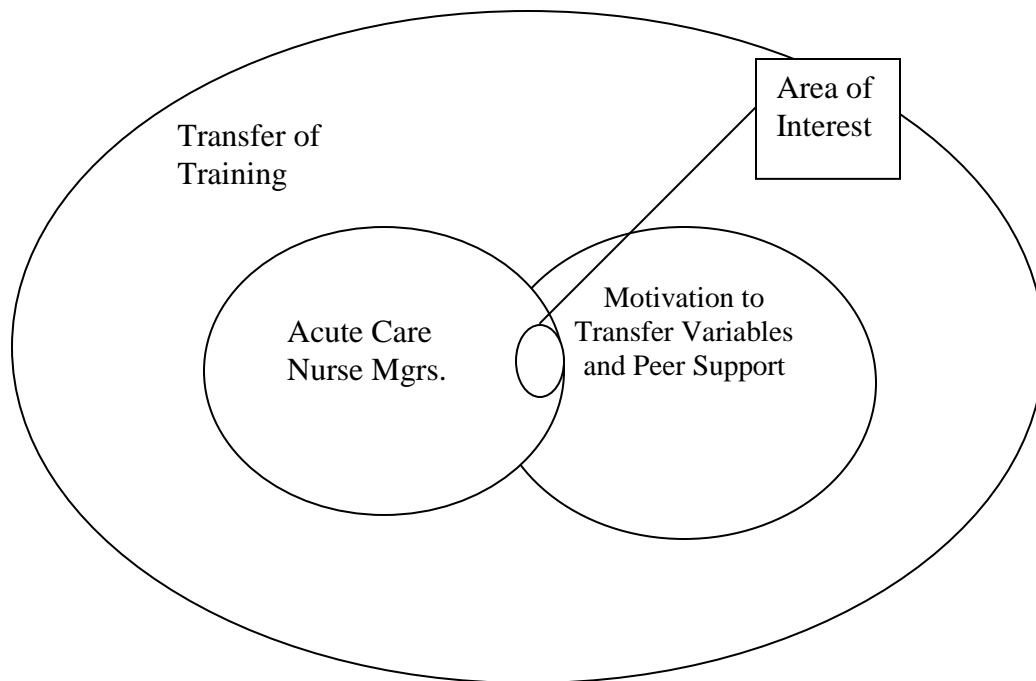


Figure 2.1 Literature Concept Map.

Introduction

According to Patel (2010), in 2009 United States employers spent an estimated \$125.88 billion on employee training. Training and development has been defined by Swanson and Holton (2001) “as a process of systematically developing work-related knowledge and expertise in people for the purpose of improving performance” (p. 204).

Training is focused on teaching new behaviors or changing existing behavior of individual participants (Goldstein & Gilliam, 1990). Enhanced performance is thought to assist the organization in remaining competitive (Bates & Khasawneh, 2005).

The present exploratory study used the LTSI to measure motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support, while controlling for education (certification or degree in finance, business, or administration) and years in present position.

Transfer of Training

As previously stated, it has been estimated that only 10% to 20% (Curry, Caplan, & Knuppel, 1994) of training transfers to the work setting when no effort is made by the organization to enhance transfer. Positive transfer of training occurs when the trainees effectively apply the knowledge, skills, and abilities gained in a training context to the job (Wexley & Latham, 1981). Learning must first occur, then transfer and maintenance of the learning into a change in behavior and performance. Holton et al. (2007) stated, “...transfer of learning is necessary to build intellectual capital in organizations” (p. 414). Organizations have devoted increased resources to training their workforce in an effort to increase competitiveness and improve services (Holton & Baldwin, 2003).

Nursing Leadership

Healthcare providers are no different from other organizations in their need for a competitive advantage. Nursing leaders are key in the utilization of organizational resources, and it is important for them to use these resources wisely to assist the organization in remaining competitive.

Most studies completed on the transfer of training in nursing management have been completed outside of the United States. Those studies completed in the United States have not included training on budgetary performance or how motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support may have affected this transfer (Meyer, Lees, Humphris, & Connell, 2007, p. 313).

Due to the complexity of budgeting within a hospital setting, nurse managers need to develop as accurate a budget as possible and to stay within its parameters. Budget variance analysis enables the manager to understand what caused the variance and to explain this to senior management.

Billions of dollars are spent annually on leadership development across all sectors of business through various training programs, including nurse management programs. According to Lauder, Reynolds, and Angus (1999), “Transfer is a construct of enormous importance for nursing and has implications for both education and practice” (p. 485). Continual changes in the healthcare industry have created a great need for training to assist nurse managers in meeting their leadership responsibilities.

Undergraduate nursing programs do not routinely require administrative, financial, or business courses. Nurse managers' acquire experience in their leadership role that may help improve their performance with budgeting due to familiarity with the process and the repetitive skill practice in the position. But, there is also a need for continued professional development in finance and budgeting. When training events for nurse managers are completed, every attempt to ensure that this newly gained knowledge will transfer back into

the work setting should be made. Transfer of training is necessary for training to be of the greatest benefit to the nurse manager and the organization. The literature on transfer of training for nurse managers, specifically as it relates to budgeting skills, is almost nonexistent, presenting a large research gap.

Personnel salaries and benefits are a large portion of monies spent in the hospital setting. Due to the number of employees nurse managers are responsible for they have a great deal of responsibility and accountability for the money spent on operations. According to Lalli (2003), “Typically the largest component of a healthcare provider’s expenses are employee expenses for salary and benefits” (p. 34). Nurse managers have expressed an increased need to have more continuing professional development related to budgeting (Gould et al., 2000; Mathena, 2002). Motivation has been determined as a significant factor in transfer of training and presumably applies to budgeting training for nurse managers.

Motivation Theories and Theoretical Framework

The goal of an organization is to produce a product or service. Motivation is the potential ability to produce a desired effect. “Cognitive motivation” is concerned with what learners are prepared to learn, the topic, and how much effort they are prepared to exert to learn it (Dickinson, 1995). “Motivation refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect” (Crookes & Schmidt, 1991, p. 389). “Motivation at its core deals with why people behave as they do” (Wlodkowski, 1999, p. 67).

Motivation Research

The literature categorizes motivation as extrinsic or intrinsic. People who are motivated in doing an activity for its own sake rather than because of external pressure or reward are motivated intrinsically (Deci & Ryan, 1985). In contrast, people who are motivated in doing an activity because of external pressure or reward are motivated extrinsically (Deci & Ryan, 1985). “People will be intrinsically motivated only for activities that hold intrinsic interest for them, activities that have the appeal of novelty, challenge, or aesthetic value” (Ryan & Deci, 2000, p. 71). Extrinsic motivation has been categorized as external regulation, introjected regulation, identified regulation, or integrated regulation. Ryan and Deci (2000) also introduced the term “amotivation” to describe the lack of motivation. This in turn leads to a spectrum of motivation, from “amotivation” to “intrinsic motivation,” with all the subcategories of extrinsic motivation between them. Varying degrees of motivation can lead to various degrees of performance and transfer of knowledge into the workplace.

Several motivation theories relate to transfer of training, including Lewin's Field Theory, Bandura's Social Cognitive Theory, and Vroom's Expectancy Theory. This study used Vroom's Expectancy Theory because of its focus on motivation that is specifically related to work (Chiaburu & Marinova, 2005; Gaudine & Saks, 2004; Holladay & Quinones, 2003).

Lewin's Field Theory. Lewin's theory is a behavioralistic theory in which the "field" that influences an individual is described in the way in which it exists for that person at that specific time (Lewin, 1951, p. 81). The acceptance of this theory has been growing in a variety of fields of study, including psychology of motivation. Looking at any situation the person finds themselves in is the beginning point of analysis in this theory. The behavior of an individual is studied at the time it occurs. Field Theory is interested in developmental problems at a much deeper and sharper analytical level than usually occurs. According to Field Theory, all changes are due to certain forces and in regard to forces causing change in cognitive structure, "It is convenient to distinguish two types: one resulting from the structure of the cognitive field itself, and the other from certain valences, needs or motivations" (Lewin, 1951, p. 83).

Characteristics of Field Theory include: (1) constructive method, (2) dynamic approach, (3) psychological approach, (4) analysis beginning with the situation as a whole, (5) behavior as a function of the field at the time it occurs, and (6) mathematical representations of psychological situations (Lewin, 1951). Constructive method refers to a "representation of an individual case with the help of a few elements of construction" (Lewin, 1951, p. 60). The dynamic approach was described as the "force to an interpretation

of changes as the result of psychological forces” (Lewin, 1951, p. 61). The psychological approach refers to Field Theory's being behavioralistic, referring to “the field which influences an individual should be described not in objective physicalistic terms, but in the way in which it exists for that person at that time” (Lewin, 1951, p. 62). Field Theory generally starts with a characterization of the situation as a whole. The theory is interested in developmental or historical problems, but it uses a much sharper analytical treatment for these problems (Lewin, 1951). Geometry and math have been integrated in this theory, and Field Theory’s acceptance has increased in various fields of psychology, including psychology of motivation. Lewin (1951) stated, “According to field theory, all changes are due to certain forces (directed entities).”

Bandura’s Social Cognitive Theory of Self-Regulation. Bandura’s theory is also frequently mentioned in the transfer literature due to the influence of self-efficacy on motivation to transfer (Chiaburu & Marinova, 2005; Gaudine & Saks, 2004; Holladay & Quinones, 2003). Three mechanisms of social cognitive theory are especially relevant: (1) the development of people’s cognitive, social, and behavioral competencies through mastery modeling, (2) the cultivation of people’s beliefs in their capabilities so that they will use their talents effectively, and (3) the enhancement of people’s motivation through goal systems (Bandura, 1988; Wood & Bandura, 1989).

The first mechanism, mastery modeling, is widely used to develop intellectual, social, and behavioral competencies. According to Wood and Bandura (1989), “The method that produces the best results (*mastery modeling*) includes three major elements” (p. 363): (1) appropriate skills, (2) guided performance, and (3) a transfer program. Modeling of the

appropriate skills (item 1) conveys the basic competencies. This modeling should teach general rules and strategies for dealing with different situations. People need to know how to apply the rules widely and adjust to changing conditions. Guided performance (item 2) occurs after the learner understands the new skills, but while the learner continues to need guidance and opportunities to practice them. A transfer program (item 2) developed with the aim of providing self-directed success for the individual should be available to training participants. This program is an effort to assist the individual in gaining experience in success when using what they have learned in order to believe in themselves and the value of the knowledge they have gained.

According to Wood and Bandura (1989), “People’s belief about their efficacy can be instilled and strengthened in four principal ways” (p. 364): (1) mastery experiences, (2) modeling, (3) social persuasion, and (4) judgments of their physiological states. Mastery experiences (item 1) include performance successes that strengthen self-beliefs of capability to succeed. Modeling (item 2) is to strengthen self-belief by developing proficient models that build self-beliefs of capability by conveying to observers effective strategies for managing different situations (Wood & Bandura, 1989). Comparison one's performance to others’ and social persuasion (item 3) is another way of increasing self-efficacy by receiving realistic encouragement, giving a person reason to exert greater effort and become successful. And lastly, people can enhance their physical stamina (item 4) to reduce their stress levels.

The last mechanism identified in Bandura’s Social Cognitive Theory is the enhancement of people’s motivation through goal systems. Setting goals has significant impact on behavior changes in the work setting (Wexley & Baldwin, 1986; Wexley &

Nemeroff, 1975). Whether or not the information taught is learned by the training participants is the first step in the transfer process and coincides with this theoretical framework. Following this, is the fact that people's judgment of personal efficacy affects the choice of activities they will become involved in and the environments they choose to participate. Their self-beliefs of efficacy also determine their level of motivation and are reflected in the amount of effort they will exert and how long they will persevere. Utilizing goals has been determined to enhance motivation to transfer (Locke & Latham, 1984).

Bandura's Social Cognitive Theory of Self-Regulation has supported applicable transfer research by providing a foundation focused on the individual's belief in their ability to accomplish desired goals, mastering skills, and setting goals for transfer. This theory emphasizes the continued difference between acquisition and performance. People do not always act upon, or change behavior based upon, what they know or have learned. A person's belief in their ability to reach a goal is a critical aspect in transfer of training. Motivation to transfer is a significant factor in transfer of training, and self-efficacy has been linked to motivation (Chiaburu & Marinova, 2005).

Mastery modeling is focused on the transfer process and how to intervene to enhance transfer of training. Using modeling behavior helps show the correct way to perform the skill by using role play and demonstration. Giving the individuals an opportunity to use the skills learned plays a critical role. Opportunity to use is a significant factor in transfer of training (Burke & Hutchins, 2007; Lim & Johnson, 2002; Merriam & Leahy, 2005; Seyler et al., 1998). Many studies related to transfer of training have used self-efficacy and this theory as their foundation for their study due to this motivation component (Lim & Chan, 2003).

Vroom's Expectancy Theory. Vroom's theory was developed to explain almost all work-related behavior from occupation choice to performance on the job. It focuses on choice, effort, and persistence. Vroom based his theory on Lewin's Field Theory. The strength of a tendency to act in a certain way depends on the strength of an expectation of a given outcome, and the attractiveness of this outcome to the individual is one of the central arguments for Expectancy Theory (Robbins, 1993). "Choices made by a person among alternative courses of action are lawfully related to psychological events occurring contemporaneously with the behavior" (Vroom, 1964, p. 15). According to Vroom (1964), behavior is directed by three mental components: valence, instrumentality, and expectancy. This formulation is written as $\text{Valence} \times \text{Instrumentality} \times \text{Expectancies} = \text{Motivational Force}$. (See Figure 2.2.)

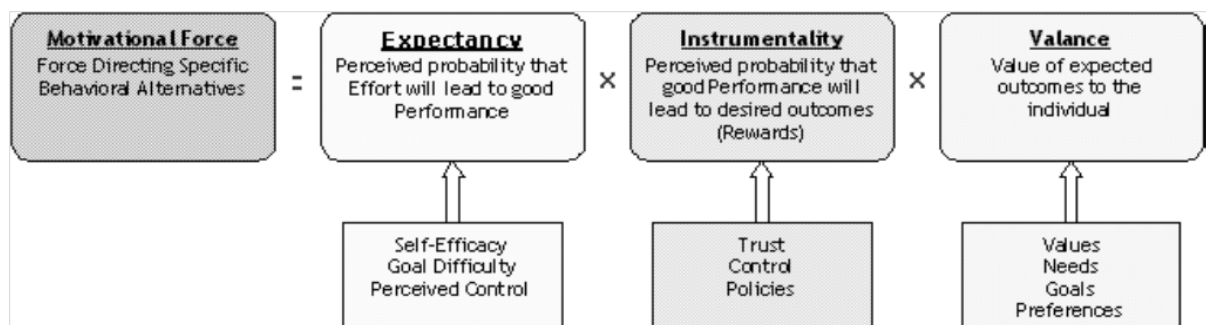


Figure 2.2 Vroom's Model (1964)

Valence is defined as the affective (emotional) orientations people hold with regard to outcomes (Vroom, 1964). Valence describes an individual's weighing the choices and their potential outcomes, whether beneficial or not, and the differences of those outcomes in respect to the individual's desires. An outcome has a valence of "0" when the person is indifferent to acquiring it. "The most important feature of people's valences concerning

work-related outcomes is that they refer to the level of satisfaction the person expects to receive from them, not from the real value the person actually derives from them” (Ramlall, 2004, p. 56). At any time, there may be a significant discrepancy between the anticipated satisfaction from an outcome and the actual satisfaction that it provides. The greater the valence of an outcome, the more likely the person is to attempt to achieve the outcome.

The valence of an outcome is a function of its instrumentality for obtaining other outcomes and the valence of those other outcomes. Instrumentality is the perceived probability that good performance will lead to desired outcomes (Vroom, 1964). Instrumentality is perception by the individual as to whether or not improving their performance will provide them with the rewards they desire. It is one’s perceived causal connection between one’s performance and the rewards one expects to receive as result of this performance.

Expectancy is the perceived probability that effort will lead to good performance. It is an action-outcome association (Vroom, 1964). Expectancy is the strength of an individual’s belief about whether a potential outcome is possible (Ramlall, 2004). And, expectancies describe the perception by an individual regarding whether their effort will lead to the performance they desire. Thus, they define “good performance” within themselves.

A person’s level of performance varies directly with the strength of the individual’s need for achievement. Individuals perform at a higher level if they are led to believe that the task requires abilities they value or believe they possess. Individuals who are given an opportunity to participate in making decisions that have future effects on them perform at a higher level than those not given that opportunity.

Multiple factors affect an individual's perception regarding all of these choices and decisions including the composition of their work group. The work group's degree of cohesion has a significant effect on the choices made by the individual. If the group is cohesive and the individual strives to be accepted, then there is a motivational component within social arenas (Vroom, 1964).

Vroom's Expectancy theory refers to the social aspect of learning and how peers and other members of the learning and work environment impact the learning and transfer process. Performing at a higher level due to the expectations of others and themselves is a part of this social aspect of Vroom's theory. Within the social aspect is the effect of peer support and the opportunity to use the learning in the work setting, both of which have been found to be significant factors in the transfer of training (Burke & Hutchins, 2007; Lim & Johnson, 2002; Merriam & Leahy, 2005; Seyler et al., 1998). Work is a social activity, and virtually all work roles require some type of social interaction. Most workers are members of one or more work groups. Workers in highly cohesive groups (i.e., whose workers are attracted to the group and desire acceptance by its members) are more likely to produce at the same level of performance as their coworkers than are workers in groups with low cohesiveness.

Use of Theory in Present Study

Transfer of training theories encompass training design, trainee characteristics, and work environment categories. The trainee characteristics categorical factors chosen for this study are motivational factors. The work environment categorical factor includes peer support. These are factors within Vroom's Expectancy theoretical framework. Expectancy

Theory argues that the strength of a tendency to act in a certain way depends on the strength of an expectation of a given outcome and the attractiveness of this outcome to the individual (Robbins, 1993). A person's level of performance varies directly with the strength of the individual's need for achievement. Individuals who are given an opportunity to participate in making decisions that have future effects on them perform at a higher level than those not given that opportunity.

Motivation to Transfer—Significant Variables

Training occurs in the classroom, online, and in the work setting itself (formal or informal). Transfer of training in any setting is composed of many variables, including trainee characteristics, training program design, learning environment, and work environment (Axtell et al., 1996; Baldwin & Ford, 1988; Chen & Ho, 2001; Foxon, 1993; Lim & Johnson, 2002). Multiple factors within each of these categories affect transfer. Trainee characteristics include motivation to learn, motivation to transfer (Burke & Hutchins, 2007; Chen & Ho, 2001; Lim & Johnson, 2002; Merriam & Leahy, 2005), and ability (Elangovan & Karakowsky, 1999; Kontoghiorghes, 2004; Yahgi et al., 2008). Training design (Baldwin & Ford, 1988; Lim & Johnson, 2002) includes program objectives, program length, delivery modality, and program learning aids (e.g., media, activities, and handouts). Work environment refers to the environment on the job where the trainee attempts to transfer training they received. This may include support from their immediate supervisor (Chen & Ho, 2001; Kim, 2004; Kontoghiorghes, 2004; Lim & Johnson, 2002; Merriam & Leahy, 2005; Yahgi et al., 2008) and peers (Burke & Hutchins, 2007; Chiaburu & Marinova, 2005; Cromwell & Kolb, 2004; Salas & Cannon-Bowers, 2001; Seyler et al., 1998), and

opportunities to use training (Burke & Hutchins, 2007; Chen & Ho, 2001; Kontoghiorghes, 2004; Merriam & Leahy, 2005). Transfer research by Rouiller and Goldstein (1993) showed that the environment is at least as important as learning (gaining knowledge, skills and abilities) in predicting use of the learning on the job.

Transfer influences have been identified and organized into three categories: trainee characteristics, training design, and work environment (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Holton et al., 2007; Kirwan & Birchall, 2006; Lim & Johnson, 2002; Noe, 1986). Over the years, researchers have added factors to each category of influence on transfer of training. For example, Holton et al. (2000) incorporated motivation to transfer, transfer effort–performance expectations, and performance–outcome expectations in Version II of their LTSL.

Motivation to Transfer

Motivation to transfer has often been identified as one of the most influential trainee characteristics on transfer of training (Burke & Hutchins, 2007; Chen & Ho, 2001; Kontoghiorghes, 2004; Lim & Johnson, 2002; Merriam & Leahy, 2005; Yahgi et al., 2008). Motivation to transfer is the direction, intensity, and persistence of effort made toward utilizing skills and knowledge learned in the work setting (Kirwan & Birchall, 2006). Kirwan and Birchall (2006) examined transfer of training using nurse managers in the Irish Health Services and found that more transfer of training factors were significantly correlated to motivation to transfer than any other factor. Peer and supervisory support correlated the highest with motivation to transfer (Burke & Hutchins, 2007; Cromwell & Kolb, 2002 2004; Kirwan & Birchall, 2006).

Transfer Effort–Performance Expectations and Performance–Outcomes Expectations

Motivational factors have been measured by transfer effort–performance expectations and performance–outcomes expectations. These measures are intended to measure transfer-related expectations and stem from Vroom’s (1964) Expectancy Theory. Transfer effort–performance expectations and performance–outcome expectations have been identified as two of three measures reflecting individual cognitive states (Bates & Khasawneh, 2005). Transfer effort–performance expectations is defined as “expectation that effort devoted to transferring learning will lead to changes in job performance” (Holton et al., 2007, p. 399). This includes the extent to which learners believe that applying new learning will improve their performance on the job (Bates & Khasawneh, 2005). Performance–outcomes expectations is defined as “expectation that changes in job performance will lead to valued

outcomes” (Holton et al., 2007, p. 399). This measure is the extent to which individuals believe that application of their learning will lead to recognition or rewards they value in the work setting (Bates & Khasawneh, 2005). These two factors were added to Holton and Bates’s second version of the LTSI due to their fit in the theoretical frame of Vroom’s expectancy theory and their relationship to motivation (Holton et al., 2007).

Self-efficacy

Self-efficacy is defined as a person’s belief in their capabilities to mobilize the motivation, cognitive resources, and action needed to exercise control over events in their lives and to accomplish desired goals (Wood & Bandura, 1989). “People’s belief about their efficacy can be instilled and strengthened in four principal ways” (Wood & Bandura, 1989, p. 364). The first of these four ways to instill and strengthen self-efficacy is mastery experiences. Mastery experiences include performance successes that strengthen self-beliefs of capability to succeed. The second way is modeling and this way is to strengthen self-belief by developing proficient models that build self-beliefs of capability by conveying to observers effective strategies for managing different situations (Wood & Bandura, 1989). The last two ways to instill and strengthen self-efficacy is comparison of self to others and social persuasion. These are accomplished by receiving realistic encouragement, giving people reason to exert greater effort and become successful.

A person’s self-beliefs of efficacy also determine their level of motivation and are reflected in the amount of effort they will exert and how long they will persevere. A person’s belief in their ability to reach a goal is a critical aspect in transfer of training (Yamnill &

McLean, 2001). Studies researching transfer of training have used self-efficacy as the foundation for their study due to this motivation component (Lim & Chan, 2003).

Learner Readiness

Knowles's Adult Learning Theory assumes that adults enter the learning environment ready to learn (Knowles, 1984). This implies that the learner enters the education event with preconceived ideas from their past experience with education events. The readiness to learn is often based on a trigger of need to learn something new (Knowles, 1984). Learner readiness has been identified as a secondary influence on motivation to transfer training in Holton and Bates's LTSI (Yamkovenko, Holton, & Bates, 2007). Learner readiness describes how prepared the learner is to enter training. It has been defined as the "extent to which individuals are prepared to enter and participate in a training program" (Broucker, 2007). This includes knowing what to expect during the training and how the training can be used on their job and in their work performance.

Peer Support

Peer support significantly affects motivation to transfer (Bates et al., 2000; Burke & Baldwin, 1999). It involves peers' providing reinforcement to the trainee in the use of what has been learned in training back into the work setting. Peer support has been related to both pre-training motivation and skill transfer, with the relationship between peer support and skill transfer being the stronger of the two (Chiraburua & Marinova, 2005). Kirwan and Birchall (2006) stated, "Taking *motivation to transfer* as the dependent variable first, a stepwise linear regression demonstrated that *peer support* contributes most significantly to *motivation to*

transfer” (p. 262). Motivation to transfer has been found to be a significant factor in transfer of training, implying that peer support contributes indirectly to transfer of training.

Measurement of Transfer

Transfer of training has been measured in a variety of ways. Some studies have measured trainees’ perception of their transfer back to the work setting using self-reported data (Chiaburu & Marinova, 2005). This type of measurement has been predominant; few studies have used a proxy to measure actual transfer of training. Motivation to transfer training is a very difficult concept to measure, as according to Wlodkowski (1999), “We cannot observe motivation directly nor measure it precisely, we can only infer it from what people say and do” (p. 1). Acquisition of knowledge and task-oriented skills are easier to measure than soft skills (e.g., communication, conflict resolution), due to the ability to obtain a score on a posttest or visualize a demonstration of task performance in the natural work environment. Task observations can be scheduled, whereas conflict resolution skill demonstration may be difficult to observe and measure in the natural work setting.

Timeframes Used for Transfer of Training Measurement

Measurement of transfer of training variables has occurred at pre-training; immediately post-training; 30 and 60 days post-training; 3, 6, and 9 months post-training; and annually up to 2 years post-training (Chang et al., 2008; Heaven et al., 2006; Milne et al., 2000; Saks & Belcourt, 2006). The time period for measurement of transfer after training is still inconsistent. The present study used immediate post-training for data collection for those participants completing the online finance/budget training course. The post-training time for

data collection varied when using the LTSI for other participants completing different training courses.

Measurement Tools

Kirkpatrick's model for evaluating training was one of the first introduced (in 1959) and is still used frequently. Alliger and Janak (1989) described this model or taxonomy as being composed of four levels of measurement: Level 1—Reaction (of participants to the training event); Level 2—Learning (was the information in the training understood); Level 3—Behavior (using learning on the job); and Level 4—Results (the goals of the training were met).

Bates (2004) critically analyzed Kirkpatrick's model as to its popularity with trainers in work settings and the limitations of the model. There is increasing interest in training evaluation in organizations to determine whether resources are being used wisely to benefit the organization. Kirkpatrick's model addressed the need for training professionals and helped them understand training evaluation. The simplicity of the Kirkpatrick model is one of the main reasons for its popularity (Bates, 2004). But, Bates (2004) also stated that the model is limited in three ways: "the incompleteness of the model, the assumption of causality, and the assumption of increasing importance of information at the levels of outcomes are ascended" (Bates, 2004, p. 342).

In addition to the tools used to measure transfer of training, there are also multiple instruments to measure trainee characteristics, design of training, and environmental factors in the work setting affecting transfer of training. One of the most widely used tools is the LTSI. This tool will be used to measure motivational factors (motivation to transfer, transfer

effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) influencing transfer of training in the present study. The LTSI was developed by Elwood F. Holton, III and Reid A. Bates to measure transfer inhibiting and stimulating conditions within the work place (Broucker, 2007). It evolved from Rouiller and Goldstein’s 1993 instrument.

The LTSI (Version III) consists of 16 factors that provide a comprehensive assessment of factors that influence transfer of training (Holton & Baldwin, 2003). Factors included in this instrument were identified using factor analysis, 11 characteristics are focused on a well specified program (supervisor support, transfer design, negative personal outcomes, personal capacity for transfer, learner readiness, perceived content validity, peer support, opportunity to use, motivation to transfer, supervisor sanction, positive personal outcomes), and 5 factors are more general and focus on educational programs in organizations (performance coaching, performance-outcomes expectations, performance self-efficacy, transfer effort-performances expectations, openness to change) (Broucker, 2007, p. 5).

In summary, there have been some advances made in the identification of variables affecting transfer in the training design, trainee characteristics, and work environment factors. But, gaps still remain in the transfer literature related to studies conducted in the work environment, specifically with nurse managers in hospital settings and their role in the budget process.

Motivation to transfer, transfer effort–performance expectation, performance–outcomes expectations, self-efficacy, learner readiness, and peer support have been identified

as significant variables related to transfer of training. Whether their presence has an effect on transfer of training in hospital-based nurse managers was yet to be studied. Nurse managers are an integral part of the total operation of any hospital and how they manage their operational budgets is a key factor in the financial success of the organization. Understanding how these specific factors are perceived to affect performance may indicate which interventions may be the most successful in assisting nurse managers in transferring training.

Previous Studies of Transfer of Training in Nurse Managers

Resources available for training and development in hospitals have been scrutinized closely by senior leadership. The time and resources devoted to training are being evaluated based on their benefit to the organization. The question is: how do we measure the transfer of the training back into the workplace to show an improvement in processes and outcomes? Research pertaining to transfer of training in nursing management has been limited and many of these studies have been completed outside of the United States. Studies completed in the United States have not included training on budgetary performance or how motivation to transfer, transfer effort – performance expectations, performance –outcomes expectations, self-efficacy, learner readiness, and peer support may have affected this transfer.

Meyer et al. (2007) assessed the impact of nursing practice of critical-care skills training for ward nurses in the United Kingdom. Semi-structured interviews were used to explore perceived learning and the transfer of learning from a variety of courses. Participants were course attendees (47) and line managers (19) from two different sites between 2005 and 2006. The design of the evaluation was based on Kirkpatrick's (1994) evaluation of training programs and Phillips and Phillips's (2001) *return on investment in training*. The training

interventions ranged from short courses up to 3 days, to specific nurse-practitioner courses of 1 year (critical care skills). Increased confidence in assessment skills, inter-professional team-working skill, ability to detect early signs of deterioration, and generally more relevant knowledge were identified as outcomes from the courses. It was also found that individual learning positively affected performance and, even though few hard measures of success existed, interviewees perceived the training interventions to have had aided their nursing practice. Course attendees and managers reported that "...a positive and supportive environment all contributed to the successful embedding of new knowledge and transfer of learning to others on the ward" (Meyer et al., 2007, p. 313).

Loo and Thorpe (2004) conducted a Delphi study in Canada to determine ways to decrease stress and increase effectiveness of first-line nursing managers (FLMNs). After two rounds of this study, it was determined that "...there is a need for skills training in the basic management functions such as planning, staffing, budgeting, and dealing with union-management relations" (Loo & Thorpe, 2004, p. 95).

Gould et al. (2000) focused on identifying areas where clinical nurse managers perceived that they would benefit from further training. Participants included clinical nurse managers in acute care hospitals in the United Kingdom. Methods included qualitative, random sample interviews with 15 clinical nurse managers and then a survey questionnaire to 182 clinical nurse managers (response rate of 65%: 118). Results indicated the following areas of training needs: human resources, managing budgets, deputizing for senior colleagues across the trust, and using information technology in everyday practice. The study confirmed that Continued Professional Development (CPD) continues as a major issue for clinical nurse

managers in the UK and that providing opportunities for development may be an important factor in enhancing job satisfaction. "...the role of the clinical nurse manager has become increasingly complex and more is expected from them" (Gould et al., 2000, p. 14).

Duffield and Franks (2001) discussed the skills needed for hiring qualified nurse managers and in turn their ability to hire qualified staff and retain them. There is also discussion by the authors about how the US differs from Australia in that healthcare executives in the US want their future nurse managers to be prepared at least at the master's level. They also prefer joint degrees in clinical and management disciplines. This is not an entry-level requirement. A preference of clinical experience is expressed by hospital senior leadership if dual degrees are not available.

Gaudine and Saks (2004) tested the effects of relapse prevention and enhancement interventions on the self-efficacy, transfer behavior, and performance of a group of nurses who attended a two-day training session on the McGill Model of Nursing (a complex interpersonal skill). The study was conducted in Canada with nurses from one hospital on 11 different nursing units/departments. These nurses' supervisors also attended the training in order for them to be able to rate the nurses' performance after training and facilitate the transfer of training. Participants completed a questionnaire prior to training to collect background, demographic, and self-efficacy variables. A post-training questionnaire was completed at the end of the training for the control group and immediately following the transfer intervention (relapse prevention) for the experimental group. Participants were also asked to complete questionnaires at two and six months after the training program. Transfer behavior and performance were measured by a questionnaire given to supervisors at the end

of the training program and two and six months later. Neither intervention improved the trainee's self-efficacy, transfer behavior, or performance compared to the control group's results.

The results prompted the authors to question the effectiveness of the training program's design and delivery. However, they also considered the organizational context the nurses worked in. "...there was a great deal of support on the part of nurses, supervisors, management, and the union for the training. This provided a very positive and supportive climate for the training program and for transfer, something that has been shown to be extremely important for transfer" (Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanaugh, 1995). This study reinforces other studies demonstrating how the effectiveness of post-training transfer intervention depends on the organizational context. Certain interventions work better in supportive environments (goal setting) than in unsupportive environments (relapse prevention). The LTSI may be useful for completing a diagnosis of the transfer system to identify barriers and potential post-training transfer interventions.

Milne et al. (2003) evaluated systematically a manualized and evidence-based training program. This program was intended to assist participants in gaining competence in evidence-based interventions for patients with mental illnesses in the United Kingdom. The program was delivered over a 17-day period in a modular and experiential workshop. Eighteen mental health nurses (National Health Service psychiatric hospital) were allocated to the experimental group receiving training or to a waiting-list control group (7 mental health nurses). This was an unselected sample from a population of 59 from this hospital. Staff attending training was asked to complete measures at different times throughout the

training. A generalized questionnaire self-report to evaluate the extent to which training had been transferred was administered 6–9 months after completion of the course. The multi-dimensional “Organizational Context Evaluation: Barriers to Change Questionnaire” was used to establish whether the participants' work environment was perceived to be supportive or unsupportive. Results on the “knowledge quiz” indicated a significant change between the experimental and control groups post-training. The experimental group’s score increased from 17 (24%) pre-training to 40 (56%) post-training, whereas the control group remained at 19 (27%). These groups' statistical comparisons were non-significant at pre-training ($Z = -0.699$; NS), but statistically significantly different post-training ($Z = -3.181$; $p < .01$). At 6–9 months, there was a further increase in scores for the experimental group from 40 to 44.

Mathena (2002) sought to determine what skills nurse managers in the US felt they needed in order to perform optimally as nursing leaders. Ninety-one surveys were sent to nurse managers at five hospitals within the same health system in Boston, with a return rate of 60% (55). Most of the nurse managers in the study had advanced nursing degrees and extensive experience in management. They had responsibility for one to five units and were accountable for most of the full-time employees and the budgeted professional salary and wage dollars. Major barriers to their professional development included lack of time and resources. It was found that the respondents value communication skills the most, but believe they would benefit the greatest from additional education in financial management and technical skills (Mathena, 2002).

Francke et al. (1995) reviewed the literature on the effect of continuing-education programs. “Alterations in knowledge, skills and attitudes do not automatically mean changes

in practice” (Francke et al., 1995, p. 371). Waddell (1990, 1991) found no relationship between experience and behavioral changes. Characteristics of the social system include social support, climate and setting, practical conditions and support, area, and nursing system. Multiple studies regarding social support indicated, “.....nurse participants experienced disapproval, envy and lack of understanding from colleagues and superiors” (Francke et al. 1995, p. 375). Studies indicated that the climate in academic hospitals is more open to education and changes in practice than that in nonacademic hospitals.

Lauder et al. (1999) summarized the transfer of knowledge literature from campus to a clinical area, one part of a clinical area to another, and from community setting to the clinical area. The authors' primary interest was the different cognitive and metacognitive ideas of transfer, although skills transfer was also discussed. There is discussion within the research article as to how the clinical environment may affect transfer. Some variables identified in the environment that may impact transfer include familiarity with the current clinical environment, short placements, the difference between learning pace and work pace, and the absence of cues for retrieval of knowledge and skills. “Our current state of knowledge is such that there simply is not sufficient data to identify what combination of factors, for what type of person, engaged in what type of activity are least likely to promote effective transfer” (Lauder et al., 1999, p. 483). “Transfer is a construct of enormous importance for nursing and has implications for both education and practice” (Lauder et al., 1999, p. 485).

Kirwan and Birchall (2006) tested Holton’s model of learning transfer and suggested amendments. Participants from a management development program within the Irish health

service completed version III of the LTSI. Each of 72 nurse managers attended one of four similar management programs. All programs were delivered by the same provider. Kirwan and Birchall (2006) reported, “More factors correlated with it (motivation to transfer) more significantly than with any other factor” (p. 258). And, “. . .in terms of work environment factors, peer support and feedback and coaching correlate with many of the same factors—performance self-efficacy, motivation to transfer and manager support” (Kirwan & Birchall, 2006, p. 258). “Three factors relating to participant motivation are included in the LTSI framework—motivation to transfer, effort–performance expectations and performance–outcome expectations” (Kirwan & Birchall, 2006, p. 260). These factors are significantly correlated with each other. Means of the three variables were summated, and the combined new variable was called motivation to transfer. Motivation to transfer was taken as the dependent variable first in a stepwise linear regression. This demonstrated that peer support contributes most significantly to motivation to transfer ($B=0.55$, $p=0.00$) (Kirwan & Birchall, 2006). Lastly, according to Kirwan and Birchall (2006), “The amount of support received, particularly from a participant’s peers, as well as the amount of feedback and coaching received from any source independently and positively affects the motivation to transfer” (p. 264).

Basis for Present Study

Although the literature regarding transfer of training is plentiful, few studies have analyzed transfer of training within hospitals to determine support for transfer (Holton et al., 2007). Payment choices, insurance plans, and reimbursement options are more varied and complex in the United States due to the increased availability of different health insurance providers and insurance plans available.

Budget variance analysis is an important nurse management skill. When evaluating a budget variance for a department, it is essential the nurse manager responsible for the department understands the variance and is able to explain the reason for the variance to senior management. The greatest cost to nursing departments is the cost of staff salaries and it is the hardest to control.

Because many nurse managers have clinical degrees and not administrative, finance, or business degrees (or certifications), they lack the knowledge needed to develop and manage budgets optimally. Most nursing undergraduate programs focus on obtaining skill sets related to caring for patients. Experience as a nurse manager may help improve budgeting skills due to the repeated practice and exposure to the process. The gap in knowledge, skills and ability can affect a nurse manager's ability to successfully handle budgeting responsibilities and leads to a need for continued professional development in this area.

Professional development in budgeting continues to be necessary even for those experienced as nurse managers. When professional development training events are completed, the participants should be assisted in transferring the training.

Nurse managers themselves have expressed an increased need to have more continuing professional development in the area of budgeting and finance (Gould et al., 2001; Mathena, 2002).

Summary

“Motivation refers to the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect” (Crookes & Schmidt, 1991, p. 389). Theories related to transfer of training include Lewin’s Field Theory, Bandura’s Social Cognitive Theory, and Vroom’s Expectancy Theory. Vroom’s Expectancy Theory was chosen to support the present study. Factors of interest in the present study included motivation to transfer, transfer effort, performance–outcomes expectations, self-efficacy, learner readiness, and peer support.

There are numerous studies related to transfer, but the issue of low transfer rates persists. Some studies have identified key factors inhibiting or enhancing transfer and have tested potential interventions to increase transfer within organizations with identified potential barriers to transfer (Broucker, 2007; Chiaburu & Marinova, 2005; Gaudine & Saks, 2004; Saks & Belcourt, 2006). Transfer of training is necessary to build intellectual capital in organizations (Holton et al., 2007), and determining how to enhance this process is a key area of concern for organizations and trainers (Garavaglia, 1993).

Transfer has been measured in multiple ways, dependent upon the training content and design. Most studies have used self-reported data to measure the trainee’s perception of their transfer (Baumgartel et al., 1984; Chiaburu & Marinova, 2005; Cromwell & Kolb,

2002; Huczynski & Lewis, 1980; Saks & Belcourt, 2006). The present study included self-report data post-training.

Transfer of training helps organizations remain viable. The measurement of transfer using performance with management skills has been documented little in the literature and even less in the development of nurse managers in the hospital setting. Hospitals need nurse managers to have good budgetary performance in order to ensure the organization stays financially viable.

In summary, advances have been made in the identification of factors affecting transfer in the training design, trainee characteristics, and work environment factors. But, there still remain gaps in the literature related to transfer studies conducted in the work environment, specifically with nurse managers in hospital settings. Motivation to transfer, transfer effort–performance expectation, performance–outcomes expectations, self-efficacy, learner readiness, and peer support have been identified as significant variables related to transfer of training. Whether their presence influences transfer of training in hospital-based nurse managers was yet to be studied. Nurse managers are an integral part of the total operation of any hospital, and how they manage their operational budgets is a key factor in the financial success of the organization. Whether trainee characteristics or environmental factors impact this transfer of training is yet to be determined. Understanding of how factors within the trainee characteristics and environmental categories affect transfer of training may give an indication as to what interventions may be the most successful in assisting nurse managers in transferring training into the work setting.

CHAPTER III: RESEARCH METHODS

This chapter describes the methods used to answer the study's research questions and test its hypotheses regarding transfer of training. Detailed information pertaining to the exploratory research design, population and sample selection, instrumentation, validity, reliability, description of variables, data collection, and data analysis will also be provided.

Introduction

This exploratory study measured motivational factors related to the transfer of training using the Learning Transfer System Inventory (LTSI) immediately post-training in two groups of participants. The first group completed an online finance and budgeting training course specifically for nurse managers, and the second group completed training of their own choice prior to completing the LTSI.

The online finance and budget training course was developed by a leading vendor in online training programs. This training had been in use for multiple years to help enhance the knowledge of nurse managers related to budgeting and finance specific to healthcare. Budgeting in healthcare differs significantly from other industries, due to many factors related to payment sources, third-party contracts, and the requirement to meet the public's need for emergency healthcare regardless of ability to pay. The online course provided nursing-specific contact-hour credit from the American Nurses Credentialing Center. Successful completion included scoring at least 80 percent on a post-test. Due to the increase in healthcare reform initiatives in the US, there is an immediate need for nurses to be very knowledgeable in finances and the use of this knowledge in the work setting. There is also the issue of the nation's high jobless rate, which has decreased the number of individuals with

health insurance. This causes further reductions in revenue for hospitals and an increased need in efficiencies and effectiveness in resource use.

The LTSI questionnaire was developed to be completed after a training event and therefore should not be administered prior to a training event. Therefore, this study collected data only post-training. Motivational factor results from the two groups were compared. The LTSI was used to measure motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support immediately post-training. Education (formal degree from a university or college or a certificate in finance, business, or administration) and years in present position were controlled for. Education and years in present position were felt to have an impact on the nurse managers' ability to transfer online finance training due to their familiarity with the terminology and process. The immediate post-training time period for data collection was used for those participants completing the online finance/budget training course. The post-training time period for data collection using the LTSI varied among the participants completing different training courses.

Research Design

An exploratory study was conducted using a quasi-experimental design, with an experimental group (receiving online finance training provided by the researcher) and a control group (completing training of their own choice) prior to completing the LTSI questionnaire. This research sought to understand the effect of motivational factors and peer support on the transfer of finance and budget training in nurse managers in the acute care setting. See Figure 3.1 for an illustration of the study design

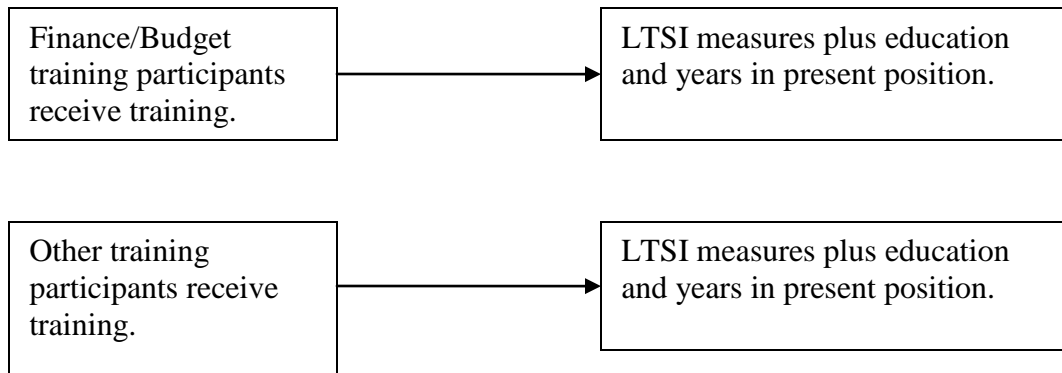


Figure 3.1 Study Design

The unit of analysis for this study is the acute care nursing manager in a hospital setting. Several research questions were used to guide this study, each of which used a related null hypothesis.

Research Question 1

Is there a difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as revealed by the LTSI?

Null Hypothesis 1

There will be no difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as revealed by the LTSI.

Research Question 2

Is there a relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) of nurse managers in the acute care hospital setting as revealed by the LTSI and years in present position or education in finance, budgeting, or administration?

Null Hypothesis 2

There will be no relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) of nurse managers in the acute care hospital setting as revealed by the LTSI and years in present position or education in finance, budgeting, or administration.

Conceptual Framework

The conceptual framework for the study includes motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support. Education and years in present position were used as covariates. Motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support were measured using the LTSI for all participants. Participants completing the online finance/budget training were self-selected based on interest in completing the training. The LTSI questionnaire, which included questions pertaining to education and years in present position, was completed by all participants post-training. Fifty-nine participants were in the group completing the online

finance training. Following data collection from this group, those that opted not to complete the online finance/budget training for nurse managers were asked to participate in the study by completing the LTSI questionnaire based on their most recent learning event. The conceptual framework is illustrated in Figure 3.2.

Conceptual Framework

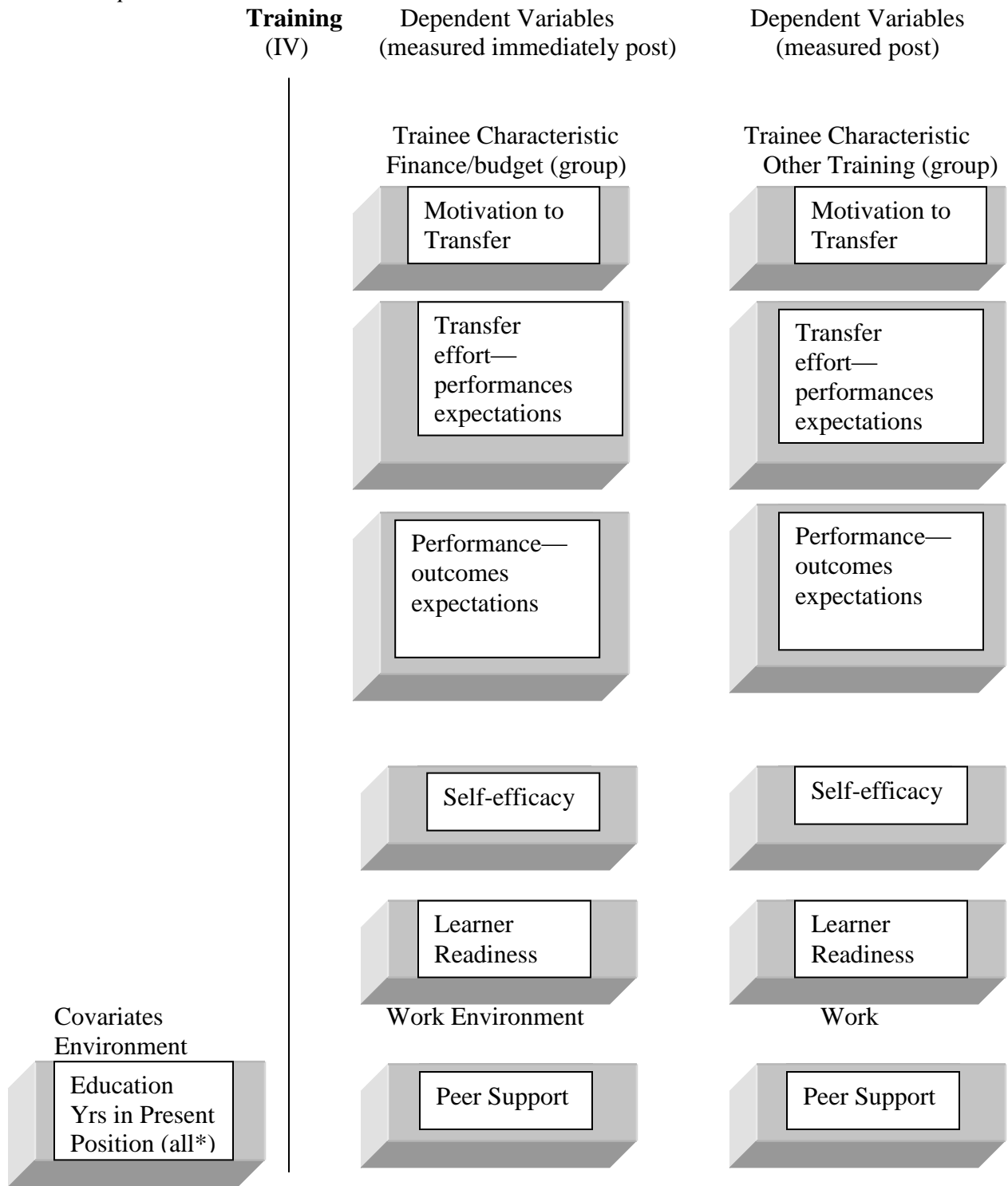


Figure 3.2 Conceptual Framework (all* – collect from all participants)

Transfer as a Research Construct and Its Measurement of Training

Transfer of training has been defined as the transfer of knowledge, skills, and abilities from training into the work setting and maintaining it (Baldwin & Ford, 1988). Positive transfer of training is the degree to which trainees effectively apply the knowledge, skills, and abilities gained in a training context to the job (Newstrom, 1986; Wexley & Latham, 1981). According to Swanson and Holton (2001), “The goal of transfer is the full application of new knowledge and skills to improve individual and/or group performance in an organization or community” (p. 245). Organizations have devoted increased resources to training of their workforce in an effort to increase competitiveness and improve services (Holton & Baldwin, 2003).

Procedures

The population and sample for this study included nurse managers with 24-hours-per-day/7-days-per-week responsibility for one or more departments within an acute care hospital. Contacting senior nurse leaders initially for approval to proceed with the study and to obtain contact information for nurse managers within their facilities (meeting the study participant requirements) was seen as the best approach to obtaining the needed participants. Email was used as the primary source of contact. The intervention (finance training) was provided online, and all data were also collected online (survey tool data).

Population and Sample

The study population consisted of nursing managers employed in North Carolina and Virginia acute care hospitals. These two states were chosen due to the Nursing License Compact (NLC) agreement they have with one another. This mutual recognition model allows a nurse to have a nursing license in their state of residence and practice in other states, subject to each state's practice laws and regulation.

Senior nurse leaders responsible for over 200 healthcare facilities / acute care hospitals were called initially to obtain their email address to request permission to contact their nurse managers to determine interest in participating in the study. Emails were sent to each senior nurse leader to obtain permission and contact information for their nurse managers meeting study criteria. A second email was sent to those senior nurse leaders that did not respond within one week of the initial email. One senior nurse leader requested that I come to their facility and present the study to the nurse managers in person to request their assistance with the study, which I did. I was also asked to attend a facility-specific Internal Review Board (IRB) meeting to present the study in order to obtain IRB approval. Two other facilities required facility-specific IRB approval in addition to North Carolina State University IRB approval. All were approved, and I was able to proceed with the study at those organizations.

Of the 153 senior nurse leaders approached via email, 21 agreed to have their nurse managers contacted regarding their participation in the study. Three hundred and thirty nurse managers were originally contacted. A second email was sent to those nurse managers who did not respond within 1 week of being sent the original email. After a third email was sent to

the remaining nurse managers not responding, 59 nurse managers agreed to complete the online finance/budget training and questionnaire (LTSI). The remaining 271 nurse managers (not completing the online finance/budget training) were then emailed to request their participation in the study by completing only the LTSI questionnaire based on their most recent training program completed. After two more emails one week apart, a total of 81 nurse managers completed the questionnaire based on other training (most recent training completed). This brought the participant total to 140.

Data were collected and analyzed from the study group made up of 140 acute care nurse managers with 24/7 responsibility for one or more nursing departments, to determine whether a relationship existed between motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support, while controlling for years in present position and education. See Table 3.1 Degree/Certification and Years in Present Position. The experimental group received finance/budget training via online delivery. The control group completed other training such as disciplinary process via various modalities (i.e., didactic program attendance and online) they chose on their own prior to LTSI questionnaire completion.

Experimental group participants were surveyed using the LTSI for motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support factors immediately post-training. Control group participants were surveyed using the LTSI for the same factors post-training at various intervals after their most recent training was completed. According to Holton et al. (2000),

changes in these motivation measures are believed to indicate whether the work environment inhibits or enhances the participant’s ability to transfer training.

Table 3.1 Degree/Certification and Years in Present Position

Group	Degree/Certification	Years in Present Position
Finance Training	22.0%	8.0 years
Other Training	19.8%	7.7 years

Measures and Instrumentation

Six factors within Version III of the LTSI (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support) were used in this study. These factors fall within the category of “motivation,” except for peer support (environment category), which has been identified as having a strong relationship with motivation to transfer on the LTSI and was used as a factor to determine motivation. The LTSI is a measurement instrument used to measure transfer-inhibiting and -stimulating conditions (Broucker, 2007).

Version III of the LTSI consists of 16 factors that provide a comprehensive assessment of the influences on transfer of training (Holton & Baldwin, 2003). The 16 factors are categorized into four groups: trainee characteristics (participant characteristics), motivation (motivation to use knowledge), ability (opportunities to use knowledge and expertise), and work environment (work environment that allows the application of knowledge) (Broucker, 2007; Noe & Schmitt, 1986). Holton & Baldwin (2003) delineate the factors within each of these categories as follows:

“Trainee characteristics include learner readiness and performance self-efficacy constructs, while the motivation scales include motivation to transfer, transfer effort and performance expectations, and performance and outcome expectations. The work environment scales include performance coaching, supervisor support, supervisor sanctions, peer support, resistance-openness to change, positive personal outcomes, and negative personal outcomes. Opportunity to use, personal capacity for transfer, perceived content validity, and transfer design comprise the factors of the ability scales.” (p. 466)

According to Holton & Baldwin (2003), the LTSI is one of the most robust transfer system instruments available today and has been construct-validated by common factor analysis. The LTSI factors are measured at the individual level using perception because people perceive particular climates differently and respond as to how they perceive them (Holton et al., 2000).

This study used motivational factors and peer support factors. These constructs have been identified in the literature as significant factors in the transfer of training. Explanatory Factor Analysis (EFA) and common factor analysis was used with an oblique rotation. The average loading on the major factor was .62. The major factor loadings of motivation to transfer, transfer effort, and performance–outcomes expectations were all .65, of self-efficacy was .58, of learner readiness was .64, and of peer support was .66. Internal reliability estimates included motivation to transfer $\alpha = .83$, transfer effort $\alpha = .81$, performance–outcomes expectations $\alpha = .83$, self-efficacy $\alpha = .76$, learner readiness $\alpha = .73$, and peer support $\alpha = .83$ (Holton et al., 2000). The LTSI variables of interest are defined and

described in Table 3.2 (Holton et al., 2000). Additional variables included education (degree or certificate in finance, business, or administration) and years in present position, as seen in Table 3.3.

Table 3.2 LTSI Scale details (* defined by Holton and Bates -use of the LTSI instrument).

LTSI Scales (Independent Variables)					
Scale Name	Scale Definition	Sample Question	Measure	Survey Item	Cronbach's Alpha
*Motivation to transfer	Direction, intensity, and persistence of effort toward utilizing in a work setting skills and knowledge learned in training. The extent to which individuals are motivated to utilize learning in their work.	I get excited when I think about trying to use my new learning on my job.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	2, 3, 4	.83
*Transfer Effort-Performance Expectations	Expectation that effort devoted to transferring learning will lead to changes in job performance.	My job performance improves when I use new things that I have learned.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	39, 40, 43, 44	.81
*Performance- Outcomes Expectations	Expectation that changes in job performance will lead to valued outcomes.	When I do things to improve my performance, good things happen to me.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	41, 42, 45	.83
*Performance Self-efficacy	An individual's general belief that he is able to change his performance when he wants to.	I am confident in my ability to use newly learned skills on the job.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	51, 52, 53, 54	.76
*Learner Readiness	Extent to which individuals are prepared to enter, participate, and profit from a training program	Before the training I had a good understanding of how it would fit my job-related development.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	1, 8, 9	.73
*Peer Support	Extent to which peers reinforce and support use of learning on-the-job.	My colleagues encourage me to use the skills I have learned in training.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	18, 19, 20	.83

Holton et al. (2000)

Table 3.3 Other Variables (Covariates)

Other Variables			
Variable	Operational Definition	Sample Question	Measure
Education	Either a formal degree from a university or college or a certificate in business, administration, and/or finance.	Do you have a business, administration, and/or finance degree or certificate?	Yes/ No
Years in Present Position	Years in their present nursing management position.	How many full years have you been in your present position?	Whole number

Data Collection

Internal Review Board (IRB) approval was obtained from North Carolina State University prior to data collection (see Appendix A for approval emails). HCPro was contacted, confirming use of their online training program titled, “Nursing Continuing CE: Finance and Budgeting for Nurse Managers” as the study’s training intervention. A request was also made by the researcher to HCPro at this time to coordinate the researcher’s ability to obtain training program completion reports for all participants in the study to determine completion rates and follow-up information.

A list of North Carolina and Virginia acute care hospitals and their senior nurse leaders’ names and contact information was obtained as initial contacts for identifying nurse managers as potential participants. This was accomplished via the North Carolina Organization of Nurse Leaders (NCONL), the North Carolina Hospital Association (NCHA), and Virginia hospitals given in Google search results for “Virginia hospitals”. The senior nurse leaders were emailed the specifics as to what the study would encompass and to solicit

their support. Interested senior nurse leaders who were not a part of NCONL, NCHA, or the Virginia hospital Google listing who found out about the study from senior nurse colleagues participating in the study were also invited to have their nurse managers be included in the study. Anonymity was explained, including that all results reported are aggregated so as not to have any individual identifying factors known by anyone other than the researcher.

Three of the 21 hospitals agreeing to participate in the study required hospital-specific IRB approval through their organization in addition to the NCSU IRB approval. The senior nurse leaders were asked for a listing of the nurse managers that are their direct reports with responsibility for the development and management of their departments' operational budgets. This list included the nurse manager's name and email address. A receipt confirmation was added to the email to the senior nurse leaders (see Appendices B and C).

All potential participants (nurse managers) were contacted via email (Appendix D) regarding their participation in the study. A brief description of the study was given with researcher contact information in case they had any further questions. Data would only be released as group performance to the appropriate entities (LTSI copyright owners, participant hospitals in the study, dissertation committee) needing to receive this information and in the written study, but no individual information would be presented in any form. An email with the consent form (Appendix E) was included in this introductory email. The nurse manager was asked to return the email with a positive response if they consented to participate. All email consents would be kept with other research documents and available only to the researcher.

The number, names, and email addresses of participants consenting to participate in the online finance training were sent to HCPro to obtain identifiers and passwords to be assigned for access to the online training program. The training intervention link and passwords were sent via email to the consenting participants. The timeframe for completion of the training program was sent with the email (Appendix G). At the end of each week, HCPro sent me a report indicating who had or had not completed the training. An additional email was sent to those not having completed the training to request they do so as soon as possible (at least by the designated date).

After the training was completed as indicated on the HCPro report, a link to the Survey Monkey LTSI questionnaire (Appendix F) was sent and included questions related to motivational factors, peer support, number of years in their present position, and whether they have certificates or degrees in finance, administration, or business. Directions for completion were included at the beginning of the survey and explained its 5-point likert scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree). This LTSI questionnaire included data collection for motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness, and peer support. Other questions included number of years in their present position and whether they have certificates or degrees in finance, administration, or business.

All potential participants (330) at acute care hospitals agreeing to participate in the study were contacted via email. Fifty-nine participants agreed to participate and completed the online financial/budget training and post-training LTSI questionnaire. Since there was a need for a larger group than the original 59 completing the online finance training and a

need for a control group, the remaining potential participants (271) would be contacted via email to determine their interest in participating in the second data collection (as the control group). This group was asked to use their most recent training completed, to answer the same LTSI questionnaire. Eighty-one participants participated in this second data collection, yielding a total of 140 participants.

Data were analyzed using descriptive statistics, Multiple Regression, and MANOVA, for quantitative variables. Results of the study would be made available to hospitals as agreed. One specific facility asked if I would present the results in either written or verbal formats when the study was completed, to which I agreed.

Data Analysis

After all the participants completed the questionnaire, the questionnaire responses were reviewed to ensure all answers were documented in the Survey Monkey Excel spreadsheet. The spreadsheet was imported into SPSS version 16 for analysis. First, simple descriptive statistics were computed to review the data to ensure that all responses were in the spreadsheet. The pre-analysis data screening process was needed to explore the shape of the distribution of the data, as MANOVA and Regression require the data be normally-distributed (Field, 2005).

Outliers

The attempt to detect outliers helps determine whether a model is biased (Field, 2005). Univariate and multivariate outliers were handled initially by looking for reasons as to why the outlier was different from the other data, and this difference was considered significant. One major outlier was found, and all of the participant's (control group member) responses were eliminated from the data analysis. This decreased the number of participant responses in the data analysis, from 140 to 139 (59 in the experimental group and 80 in the control group).

Normality of the Variable Distributions

The Kolmogorov-Smirnov test was the initial step in data analysis and indicated the data were not normally distributed, that is, the K-S test was significant. To correct this, a Box-Cox transformation was completed on the two dependent variables in question (motivation to transfer and self efficacy) (see Table 3.4) using syntax in SPSS 16 (Osborne, 2010). The Kolmogorov-Smirnov test was repeated using the transformed variables and was found to be non-significant, indicating normally distributed data.

Table 3.4 Box Cox Transformed Variables (normality of distribution)

Variable	Motivation to Transfer	Self-efficacy
Initial skew	-.676	-.174
Initial kurtosis	3.050	.738
Initial range	4.00	2.750
Transformation used	48	43
Final skew	.494	.021
Final kurtosis	.172	.605

Homogeneity of Variance

In MANOVA, it is assumed that the variances of each dependent variable are roughly equal and that the correlation between the dependent variables is the same for all groups (Field, 2005). As a second step in data analysis, Levene's test was used to check this assumption and found two dependent variables (transfer effort and peer support) significant, at .031 and .029, respectively. This test should not be significant for any dependent variables (Field, 2005). The Box-Cox transformation was used to transform these two dependent variables (Table 3.5). Levene's test was repeated, and the results were non-significant for all dependent variables: learner readiness (.611), motivation to transfer (.055), transfer effort (.056), performance (.485), self-efficacy (.168), and peer support (.058). This result gives confidence in the reliability of the univariate tests and strengthens the case for multivariate test stats being robust (Field, 2005). "Levene's test does not take account of the co-variances and so the variance-covariance matrices should be compared between groups using Box's test" (Field, 2005, p. 593). This test should also be non-significant if the matrices are the same. I checked this assumption with Box's test, and the results were found to be non-significant at .153.

Table 3.5 Box Cox Transformed Variables (homogeneity of variance)

Variable	Transfer Effort	Peer Support
Initial skew	.091	.244
Initial kurtosis	.106	-.280
Initial range	2.25	2.670
Transformation used	39	36
Final skew	-.049	-.088
Final kurtosis	.241	-.183

Linearity

The relationship being modeled was assumed to be linear. The population sample was assumed to be unbiased. Because the participants had agreed to be in the study, this sample may or may not have been representative of all nurse managers in North Carolina and Virginia. The likelihood of their being a representative sample was increased due to the number of participants (139).

Statistical Power

The power of the measure is the probability of rejecting the null hypothesis when it is false. It is desirable for the measure to have high power. For fixed alpha levels, power increases as sample size increases. Sample size determination is dependent upon the sampling distribution of the mean, the spread of the population distribution (as measured by the standard deviation), number of variables measured, the variability in the population for the variables measured, time, money, and other resources (Agresti & Finlay, 1999). Based on these criteria it was determined 139 participants was acceptable participation for this study. Obtaining this number of participants was very difficult in the acute care setting for a variety of reasons, predominantly time constraints of several potential participants.

A .05 level of statistical significance was selected for this study, which is customary in education and social science research (Hatcher & Stepanski, 1994). Due to the unequal sample size, Pillar's trace was used with an F of 3.224 (exact stat) and significance at .006.

Reliability

For reliability testing, Cronbach's alpha was conducted on each measurement scale to test for internal consistency. A sufficient reliability estimate of .70 (Field, 2005) was used to

determine which scales were included. All scales exceeded the .70 estimate as indicated in Table 3.2 and were therefore retained.

After completing the initial analysis, the research questions and hypotheses were tested using MANOVA (Research Question 1 and Null Hypothesis 1) and Regression (Research Question and Null Hypothesis 2) in SPSS version 16. Education (degree or certification in finance, budgeting, or administration) and years in present position were then regressed on all factors to test the second research question and null hypothesis.

Research Question 1

Is there a difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as delineated by the LTSI?

Null Hypothesis 1

There will be no difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers completing online finance/budget training and those completing other training as delineated by the LTSI.

MANOVA was used instead of repeat ANOVA to decrease the family-wise error rate. MANOVA has greater power to detect an effect because it can detect whether groups differ along a combination of variables (Field, 2005). This process involved obtaining the mean and standard deviation for each variable. MANOVA was used to test the first research

question and null hypothesis by comparing the two groups' responses to the LTSI. Education (degree or certification in finance, business, or administration) and years in present position were then regressed on all factors to test the second research question and null hypothesis.

Research Question 2

Is there a relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers' in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration?

Null Hypothesis 2

There will be no relationship between transfer of training motivational factors (motivation to transfer, transfer effort- performance expectations, performance- outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration.

Regression was used to analyze the data in SPSS 16 to answer the second research question and determine whether to accept or reject the second null hypothesis. Education (degree or certification in finance, budgeting, or administration) and years in present position (divided into 4 categories: 0–5 years, 6–10 years, 11–20 years, and greater than 20 years) were regressed on each motivational factor.

The regression model for the present study was first developed and drawn based on previous research, time precedence, and logic (Figure 3.3). The model was identified as a

just-identified model (just enough information to estimate the model) so that it could be estimated. Whether or not an acute care nurse manager completed the provided online finance/budget training was thought to affect motivational factors (motivation to transfer, transfer effort–performance expectation, performance–outcomes expectations, self-efficacy, and learner readiness) and peer support. It was also assumed that education (degree or certification in finance, business, or administration) and years in present position would affect the same motivational factors and peer support.

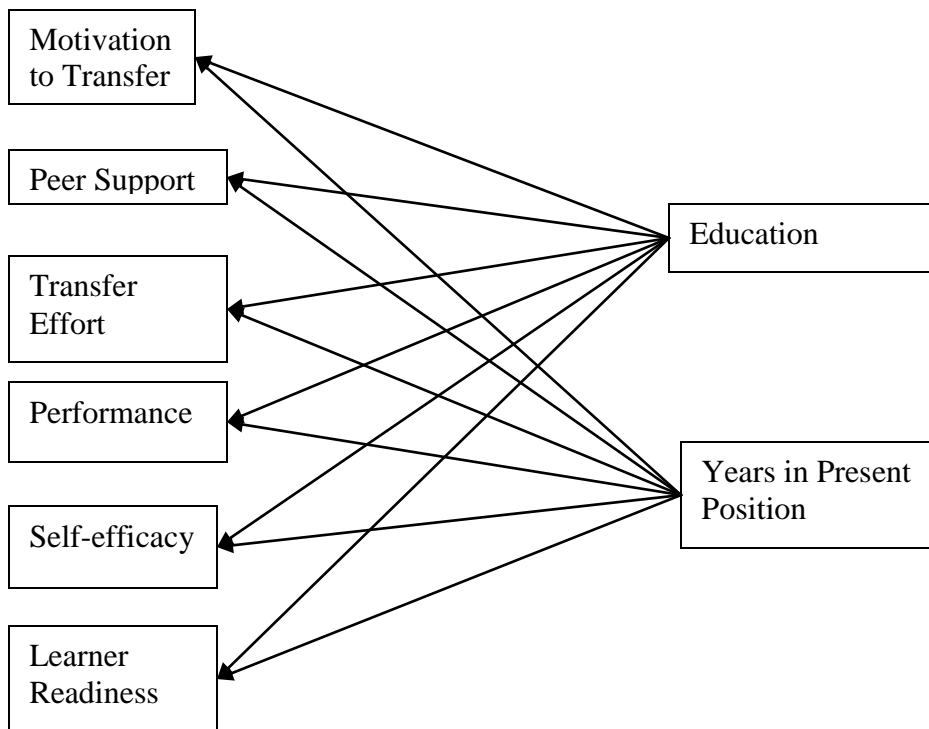


Figure 3.3 Correlation Matrix for Motivational Factors and Peer Support as they Relate to Years in Present Position and Education.

Limitations

Care must be used when interpreting the reduction in an observed relationship among multiple variables after controlling for another variable because controlling for either confounding variables or intervening variables will reduce the magnitude of the observed relationship (Pedhazur, 1997). Threats to internal validity include history, maturation, selection, and design contamination (O'Sullivan, Russell, & Berner, 2003). These threats have been identified and prevented by using a control group. Obtaining data from both groups that were a part of the same population also helped to protect against these threats.

Self-report data issues also need to be considered with this exploratory study. There is an assumption that “when social desirability responding occurs in self-report measurement, common method variance necessarily occurs and it acts to inflate the correlation between the two self-report measures” (Chan, 2009, p. 323). Anonymity was used in this study to reduce or remove social-desirability responses by decreasing the extent of evaluation apprehension. This anonymity was stressed in the written notification to all participants. A control group was also used to control for self-report data issues.

Other limitations included the difficulty in obtaining participants for the study due to time constraints related to nurse managers' job responsibilities. Other issues for some of the facilities included additional workload for nurse managers due to CMS (Center for Medicare and Medicaid) survey visits, reorganization of nursing, being in the midst of budget development, and end-of-year (fiscal) evaluations' being completed. All of these issues inhibited the availability of nurse managers to participate.

CHAPTER IV: RESULTS

The purpose of this chapter is to present the results of the demographic data of the research participants, the descriptive statistics, Chronbach’s coefficient alphas, and the research results of statistical analysis for the tested relationships in the proposed model of transfer of training (see Figure 1.2 in Chapter I), which relates the nurse managers’ perceived motivation to transfer finance/budget training versus other training back into the acute care hospital work setting.

Demographic Data

The demographic data were collected during the administration of the questionnaire section of the survey and are recorded in Table 4.1 with Group 1 representing the experimental group receiving the online finance training and Group 2 representing the control group completing other training. The demographic data included (1) years in present position, and (2) education (degree or certification in finance, business, or administration).

Table 4.1 Years in Present Position and Education (Group 1 – experimental, Group 2-control)

Demographics	Group 1		Group 2		Full Sample	
	N	%	N	%	N	%
Years in Present Position						
0 -5	36	61.02	40	49.38	76	54.29
6 -10	11	18.64	23	28.40	34	78.58
11 -20	3	5.08	14	17.28	17	90.72
>20	9	15.25	4	4.94	13	100
Education						
Yes	13	22.03	16	19.75	29	20.71
No	46	77.97	65	80.25	111	79.29

Group 1 (completion of online finance training) had 36 out of 59 (61.02%) of its nurse managers respond that they have been in their present position 0 to 5 years, with 46 (77.97%) reporting no education in finance, budgeting, or administration. In comparison, Group 2 (completion of other training) had 40 out of 81 (49.38%) of its nurse managers respond that they have been in their present position 0 to 5 years, with 65 (80.25%) reporting no education in finance, budgeting, or administration.

Internal Reliability: Cronbach's Coefficient Alpha

The LTSI measured the participants' perceptions of the motivational variables and peer support. For reliability testing, Cronbach's alpha was conducted on each measurement scale to test for internal consistency. All scales achieved a Cronbach's alpha of .70 or higher, indicating sufficient reliability estimates (Field, 2005). The corresponding questionnaire item number, a description and definition of the scale, and corresponding Cronbach's alpha coefficients are given in Table 4.2.

In comparison to Holton's published Cronbach's alphas, this study received higher Cronbach alphas for motivation to transfer (difference .01) and performance self-efficacy (difference .03). This study did not achieve equal or higher Cronbach's alphas for performance-outcomes expectations (difference .04), learner readiness (difference .02), or peer support (difference .02).

Table 4.2 LTSI Scale details

LTSI Scales (Dependent Variables)					
Scale Name	Scale Definition	Sample Question	Measure	Survey Item	Cronbach's Alpha
*Motivation to transfer	Direction, intensity, and persistence of effort toward utilizing in a work setting skills and knowledge learned in training. The extent to which individuals are motivated to utilize learning in their work.	I get excited when I think about trying to use my new learning on my job.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	2, 3, 4	.84
*Transfer Effort-Performance Expectations	Expectation that effort devoted to transferring learning will lead to changes in job performance.	My job performance improves when I use new things that I have learned.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	39, 40, 43, 44	.81
*Performance-Outcomes Expectations	Expectation that changes in job performance will lead to valued outcomes.	When I do things to improve my performance, good things happen to me.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	41, 42, 45	.79
*Performance Self-efficacy	An individual's general belief that he is able to change his performance when he wants to.	I am confident in my ability to use newly learned skills on the job.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	51, 52, 53, 54	.79
*Learner Readiness	Extent to which individuals are prepared to enter, participate, and profit from a training program.	Before the training I had a good understanding of how it would fit my job-related development.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	1, 8, 9	.71
*Peer Support	Extent to which peers reinforce and support use of learning on-the-job.	My colleagues encourage me to use the skills I have learned in training.	5-point likert scale 1= strongly disagree 2 = disagree 3 = neutral 4 = agree 5= strongly agree	18, 19, 20	.81

* – Defined by Holton and Bates use of the LTSI instrument.

Data Analysis and Results of Research Questions and Null Hypotheses

This section provides the results of the statistical analysis used to test this study's research questions and hypotheses. Each research question and hypothesis is followed by a rationale for the choice of statistical test and statistical analysis used, followed by the results. Initially, data were transformed using Box-Cox transformation due to problems with normality of the variable distributions in two factors (motivation to transfer and self-efficacy). Then the Box-Cox transformation had to be used again due to problems with homogeneity of variance in two factors (transfer effort and peer support). After these Box-Cox transformations, the Kolmogorov-Smirnov test and Levene's test were found to be insignificant, indicating correction of both normality of distributions and homogeneity of variance.

Research Question 1

Is there a difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers completing transfer of finance/budget training and those completing other training as delineated by the LTSI?

Null Hypothesis 1

There will be no difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers

completing transfer of finance/budget training and those completing other training as delineated by the LTSI.

For Research Question and Null Hypothesis 1, the data were collected by the LTSI questionnaire using a likert scale of 1 (strongly disagree) to 5 (strongly agree). The dependent variables measured were the five motivational variables (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, performance self-efficacy, and learner readiness) and peer support. The independent variable was completion of online finance/budget training or other training. The level of measurement for the independent variables is nominal (group 1 or 2), the dependent variables were assessed as interval scales, and the covariates were assessed as nominal scales for education (yes/no) and continuous scales for years in present position (Field, 2005).

MANOVA was used to answer the first research question and test the associated null hypothesis because it reveals interactions between several dependent variables simultaneously and one or more independent variables (Field, 2005). MANOVA has the power to detect whether groups differ along a combination of dimensions. It incorporates information about several outcome measures and therefore informs of whether groups of participants can be distinguished by a combination of scores on several dependent measures (Field, 2005).

All data were entered into SPSS version 16 with the dependent variables (motivation to transfer, transfer effort–performance expectations, performance–outcome expectations, performance self-efficacy, learner readiness, and peer support) and independent variable (group) with covariates (education and years in present position). Descriptive statistics are

shown in Table 4.3, which contains the overall and group means and standard deviations for each dependent variable.

Table 4.3 Means and Standard Deviations for Dependent Variables

Statistics	Group 1	Group 2	Full Sample
Mean			
Learner Readiness	3.68	3.73	3.71
Performance	3.57	3.24	3.38
Motivation to Transfer	2.44	2.41	2.42
Self-efficacy	1.61	1.46	1.52
Transfer Effort	1.34	1.14	1.23
Peer Support	1.13	1.07	1.10
Standard Deviation			
Learner Readiness	.668	.584	.619
Performance	.743	.698	.734
Motivation to Transfer	1.23	.960	1.08
Self-efficacy	.701	.583	.638
Transfer Effort	.422	.380	.409
Peer Support	.435	.351	.389

Null Hypothesis 1 was rejected. MANOVA analysis indicated a significant difference between the experimental group completing the online finance budget training and the control group completing other training, on two of the six dependent variables (performance–outcomes expectations and transfer effort–performance expectations), as indicated in Table 4.4. The significance level for performance–outcomes expectations was .008 with a confidence interval of 95% (lower bound .088 and upper bound .579). The *F*-ratio for performance–outcomes expectations was 7.217. The significance level for transfer effort–performance expectations was .004 with confidence interval of 95% (lower bound .066 and upper bound .338). The *F*-ratio for transfer effort–performance expectations was 8.634. Pillai’s trace was significant at the .006 level with an *F*-ratio of 3.224.

Table 4.4 Results for Performance and Transfer Effort Dependent Variables

Dependent Variable	F-ratio	Sig.	95% Confidence Interval	
			Lower	Upper
Performance	7.217	.008	.088	.579
Transfer Effort	8.634	.004	.066	.338

*Significance level .05

Research Question 2

Is there a relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration?

Null Hypothesis 2

There will be no relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration.

For Research Question and Null Hypothesis 2, the data were collected by the LTSI questionnaire using a likert scale of 1 (strongly disagree) to 5 (strongly agree). The dependent variables measured were the five motivational variables (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, performance self-efficacy, and learner readiness) and peer support. The independent variables were education (degree or certificate in finance, budgeting, or administration) and years in present

position. The level of measurement for the independent variable education is nominal (yes/no) and for the independent variable years in position is continuous, and the dependent variables were assessed as interval scales (Field, 2005).

The results from using regression analysis supported rejection of the null hypothesis. A significant difference was found in the amount of self-efficacy between participants who had education (a degree or certification in finance, business, or administration) and those who did not. Twenty-two percent of the variation in self-efficacy was explained by whether the participant had previous education in finance, budgeting, or administration. A good quality model should have a large (greater than 1) *F*-ratio (Field, 2005). The *F*-ratio was 7.050 with a significance level of .009. There is a relationship between education and self-efficacy as indicated by the *B* coefficient of -.351. Going from the presence of education to no education creates a change of -.351 in self-efficacy. All participants without education (degree or certificate in finance, budgeting, or administration) reported .351 less self-efficacy to transfer training than participants with education (significant at the .009 level). See Table 4.5.

Table 4.5 Self-Efficacy and Education Results

Variable coefficient	<i>F</i> -ratio	Significance	<i>B</i>
Self Efficacy .351	7.050	*.009	-

* Significance Level .05

Summary of Results

As indicated above, Null Hypothesis 1 was rejected based on the significance of the difference between the two groups on two motivational factors (transfer effort–performance expectations and performance–outcomes expectations). The significance level for performance–outcomes expectations was .008 with a confidence interval of 95% (lower bound .088 and upper bound .579). The *F*-ratio for performance–outcomes expectations was 7.217. The significance level for transfer effort–performance expectations was .004 with confidence interval of 95% (lower bound .066 and upper bound .338).

Null Hypothesis 2 was rejected based on the significance indicated between education (degree and or certification in finance, business, or administration) and the motivational factor of self-efficacy. Twenty-two percent of the variation in self-efficacy was explained by whether the participant had previous education in finance, budgeting, or administration. A good model should have a large (greater than 1) *F*-ratio (Field, 2005). The *F*-ratio was 7.050 with a significance level of .009. There is a relationship between education and self-efficacy as indicated by the B coefficient of -.351. Going from the presence of education to no education creates a change of -.351 in self-efficacy.

CHAPTER V: FINDINGS, DISCUSSION, AND IMPLICATIONS

The purpose of this exploratory quasi-experimental study was to explore the effect of online finance training in acute care nurse managers in relation to motivational factors of motivation to transfer, self-efficacy, transfer effort–performance expectations, performance–outcomes expectations, learner readiness, and peer support. A secondary purpose was to explore the relationship between these same factors, education (degree or certification in finance, budgeting, or administration) and number of years in present position after completing training. Previous chapters presented the background of the current study, research questions and hypotheses, a review of related literature, research methodology, and summary of the research data. This chapter discusses the research findings and implications for practice. Limitations of the study and recommendations for future research are also addressed.

Research Findings

As indicated in Chapters 3 and 4, Null Hypotheses 1 and 2 were rejected based on a significant difference noted in three of the factors studied. Transfer effort–performance expectations and performance–outcomes expectations were significantly different between Groups 1 (nurse managers completing online finance/budget training) and 2 (nurse managers completing other training), leading to the rejection of Null Hypothesis 1. And, self-efficacy was noted to be significantly different between those participants with a degree or certificate in finance, budgeting, or administration and those without this education.

Research Question 1

Is there a difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers completing transfer of finance/budget training and those completing other training as delineated by the LTSI?

Null Hypothesis 1

There will be no difference in perceptions related to motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) between acute care nurse managers completing transfer of finance/budget training and those completing other training as delineated by the LTSI.

Null Hypothesis 1 was rejected based on the significance of the difference between the two groups on two motivational factors (transfer effort–performance expectations and performance–outcomes expectations). The significance level for performance–outcomes expectations was .008 with a confidence interval of 95% (lower bound .088 and upper bound .579). The *F*-ratio for performance–outcomes expectations was 7.217. The significance level for transfer effort–performance expectations was .004 with confidence interval of 95% (lower bound .066 and upper bound .338).

These two measures are used in the measurement of motivational factors, which are intended to measure transfer-related expectations and stem from Vroom's (1964) Expectancy Theory. Transfer effort–performance expectations and performance–outcome expectations

have been identified as two of three measures reflecting individual cognitive states (Bates & Khasawneh, 2005). Transfer effort–performance expectations is defined as “expectation that effort devoted to transferring learning will lead to changes in job performance” (Holton et al., 2007, p. 399). This includes the extent to which learners believe that applying new learning will improve their performance on the job (Bates & Khasawneh, 2005). Performance–outcomes expectations is defined as “expectation that changes in job performance will lead to valued outcomes” (Holton et al., 2007, p. 399). This measure is the extent to which individuals believe that application of their learning will lead to recognition or rewards they value in the work setting (Bates & Khasawneh, 2005). These two factors were added to Holton and Bates’s second version of the LTSI due to their fit in the theoretical frame of Vroom’s Expectancy Theory and their relationship to motivation.

Kirwan and Birchall (2006), who studied nurse managers in Ireland, stated, “Three factors relating to participant motivation are included in the LTSI framework—motivation to transfer, effort–performance expectations and performance–outcome expectations” (p. 260). These factors are significantly correlated with each other, which supports in part what was found in this study related to transfer effort–performance expectations and performance–outcome expectations.

Mathena (2002), who studied nurse managers in Boston, found they identified lack of time and resources as major barriers to their professional development. “Although the respondents value communication skills most highly, they believe they would benefit the greatest from additional education in the areas of financial management (specifically financial analysis, cost-benefit analysis, and financial projections), and technical skills (data

mining and analysis)” (Mathena, 2002, p. 141). The present study showed a significant difference in those completing online finance training versus other training in two (transfer effort–performance expectations and performance–outcome expectations) of the six factors tested.

Research Question 2

Is there a relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration?

Null Hypothesis 2

There will be no relationship between transfer of training motivational factors (motivation to transfer, transfer effort–performance expectations, performance–outcomes expectations, self-efficacy, learner readiness and peer support) of nurse managers in the acute care hospital setting as delineated by the LTSI and years in present position or education in finance, budgeting, or administration.

Null Hypothesis 2 was rejected based on the significance indicated between education (degree and or certification in finance, business, or administration) and the motivational factor of self-efficacy. Twenty-two percent of the variation in self-efficacy was explained by whether the participant had previous education in finance, budgeting, or administration. A good model should have a large (greater than 1) *F*-ratio (Field, 2005). The *F*-ratio was 7.050 with a significance level of .009. There is a relationship between education and self-efficacy

as indicated by the B coefficient of $-.351$. Going from the presence of education to no education creates a change of $-.351$ in self-efficacy.

Self-efficacy has been defined as a person's belief in their capabilities to mobilize the motivation, cognitive resources, and action needed to exercise control over events in their lives and to accomplish desired goals (Wood & Bandura, 1989). According to Wood and Bandura (1989), "People's belief about their efficacy can be instilled and strengthened in four principal ways" (p. 364). These ways include mastery experiences, modeling, comparison of self to others, and social persuasion. The first of these principles is mastery experiences and this includes performance successes that strengthen self-beliefs of capability to succeed. Modeling is the second principal way mentioned and refers to strengthening self-belief by developing proficient models that build self-beliefs of capability by conveying to observers effective strategies for managing different situations (Wood & Bandura, 1989). Comparison of self to others and social persuasion are other ways of increasing self-efficacy by receiving realistic encouragement, giving them reason to exert greater effort and become successful.

People's judgment of personal efficacy affects the choice of activities they will become involved in and the environments they choose. Their self-beliefs of efficacy also determine their level of motivation and are reflected in the amount of effort they will exert and how long they will persevere. A person's belief in their ability to reach a goal is a critical aspect in transfer of training. Motivation to transfer, as previously indicated, is a significant factor in transfer of training, and there is a link between self-efficacy and motivation

(Chiaburu & Marinova, 2005). Studies related to transfer of training have used self-efficacy as the foundation for their study due to this motivation component (Lim & Chan, 2003).

Implications for Research and Practice

This study adds to the body of knowledge in the transfer of training literature and the nursing management literature. Vroom's Expectancy Theory was supported based on the significant difference in transfer effort and performance between those nurse managers receiving online finance training and those completing other training.

Results from this study indicate that nurse managers in acute care settings had the perception of positive outcomes (transfer effort–performance expectations, performance–outcome expectations, and self-efficacy) after completing finance/budget continuing education. “Transfer is a construct of enormous importance for nursing and has implications for both education and practice” (Lauder et al., 1999, p. 485). This study has helped to confirm the importance of finance training for nurse managers. Acute care hospital senior leadership could potentially benefit in improved operational budget performance from encouraging and supporting continuing education (degree or certification in finance, business, or administration) for acute care nurse managers.

This encouragement and support can be accomplished via multiple venues, working with academic institutions within a hospital's service area. Hospitals can work with local colleges and universities to provide certificate programs in finance and budget training for nurse managers. These programs can be provided on campus, online, or at the hospital to encourage attendance. The hospital can also encourage acute care nurse managers to pursue a degree in finance, budgeting, and/or administration.

These programs may be partly or fully subsidized by the hospital to further decrease barriers to attendance. In turn, hospitals can monitor budgetary performance pre- and post-education to determine whether the additional education has enhanced managers' ability to handle their budgets more effectively.

Limitations

Care must be used when interpreting the reduction in an observed relationship involving multiple variables after controlling for another variable, because controlling for either confounding variables or intervening variables will reduce the magnitude of the observed relationship (Pedhazur, 1997). Threats to internal validity include history, maturation, selection, and design contamination (O'Sullivan et al., 2003). These threats have been identified and prevented by using a control group. Obtaining data from both groups that were a part of the same population was also felt to help protect against these threats.

Self-report data issues also need to be considered with this type of study. There is an assumption that "when social desirability responding occurs in self-report measurement, common method variance necessarily occurs and it acts to inflate the correlation between the two self-report measures" (Chan, 2009, p. 323). Anonymity was used to reduce or remove social desirability responses by decreasing the extent of evaluation apprehension. This anonymity was stressed in the written notification to all participants. The use of a control group also helped to diminish this issue.

Other limitations included potential participants' being unavailable due to time constraints. One hospital had an unannounced visit from the Centers for Medicaid and Medicare. Another was revamping its nursing organizational chart. Budgets were being

developed in multiple hospitals, and another hospital was completing end-of-fiscal-year evaluations for their immediate reports. Nurse managers are some of the busiest managers in the hospital setting, due to many factors including responsibility for employees and patients and constantly-changing demands to meet regulations and improve the quality and safety of care.

Recommendations for Future Research

Actual measurement of transfer of training has been documented infrequently in the literature. A repeat of this study using operational budget performance pre- and post-training as a proxy of transfer for the control and experimental group would add to this body of literature by measuring transfer of training instead of perception of transfer only.

Future research could employ randomized experimental and control groups in a repeat of this study to increase the ability to generalize the results beyond the participants.

Completing a needs assessment upfront could be used as a control measure in a future study. A gap analysis between current and needed knowledge would be of benefit.

Further study needs to be completed in the areas of transfer effort–performance expectations, performance–outcome expectations, and self-efficacy. Focusing specifically on these areas utilizing the acute care nurse manager may introduce opportunities for further changes in practice to enhance nurse managers’ ability to transfer education back into the workplace and in turn improve their work performance.

REFERENCES

- Agresti, A., & Finlay, B. (1999). *Statistical methods for the social sciences* (3rd ed). Englewood Cliffs, NJ: Prentice Hall.
- Alliger, G. M., & Janak, E. A. (1989). Kirkpatrick's levels of training criteria: 30 years later. *Personnel Psychology*, *42*, 331–342.
- Atkinson, J. W., & Birch, D. (1978). *An introduction to motivation* (2nd ed.). New York: Van Nostrand.
- Axtell, C. M., Maitlis, S., & Yearta, S. K. (1996). Predicting immediate and long-term transfer of training. *Personnel Review*, *26*(1), 201–213.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, *41*, 63–105.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bates, R. A. (2004). A critical analysis of evaluation practice: The Kirkpatrick model and the principle of beneficence. *Evaluation and Program Planning*, *27*, 341–347.
- Bates, R. A., Holton, E. F., III, Seyler, D. L., & Carvalho, M. A. (2000). The role of interpersonal factors in the application of computer-based training in an industrial setting. *Human Resource Development International*, *3*, 19–42.
- Bates, R., and Khasawneh, S. (2005). Organizational learning culture, learning transfer climate and perceived innovation in Jordanian organizations. *International Journal of Training and Development*, *9*(2), 96–109.
- Baumgartel, H. J., Reynolds, M. J. I., & Pathan, R. Z. (1984). How personality and organizational climate variables moderate the effectiveness of management development programmes: A review and some recent research findings. *Management and Labour Studies*, *9*(1), 1–16.
- Broucker, B. (2007). Measuring transfer of public management programmes: The Learning Transfer System Inventory in the Belgian federal administration. *Public Administration and the Management of Diversity: EGPA Conference 2007, Madrid, Spain, September 19-22, 2007*.

- Burke, L. A., & Baldwin, T. T. (1999). Workforce training transfer: A study of the effect of relapse prevention training and transfer climate. *Human Resource Management*, 38(3), 227–242.
- Burke, L.A., & Hutchins, H.M. (2007). Training transfer: An integrative literature review. *Human Resource Development Review*, 6(3), 263–296.
- Chan, D. (2009). So why ask me? Are self-report data really bad? In C. E. Lance & R.J. Vandenberg (Eds.), *Statistical and methodological myths and urban legends: Doctrine, verity, and fable in organizational and social sciences* (pp.309–336). New York: Taylor & Francis Group.
- Chang, W., Sheen, S. H., Chang, P., & Lee, P. (2008). Developing an e-learning education programme for staff nurses: Processes and outcomes. *Nurse Education Today*, 28, 822–828.
- Chen, E. W. L., & Ho, D. C. K. (2001). A review of transfer of training studies in the past decade. *Personnel Review*, 30(1), 102–118.
- Chiaburu, D. S., & Marinova, S. V. (2005). What predicts skill transfer? An exploratory study of goal orientation, training self-efficacy and organizational supports. *International Journal of Training and Development*, 9(2), 110–123.
- Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85(5), 678–707.
- Cromwell, S. E., & Kolb, J. A. (2002). The effect of organizational support, management support, and peer support on transfer of training. *Academy of Human Resource Development (AHRD) Conference Proceedings (Honolulu, Hawaii, February 27-March 3, 2002), Symposium 22*.
- Cromwell, S. E., & Kolb, J. A. (2004). An examination of work-environment support factors affecting transfer of supervisory skills training to the workplace. *Human Resource Development Quarterly*, 15(4), 449-471.
- Crookes, G., & Schmidt, R. (1991). Motivation: Reopening the research agenda. *Language Learning*, 4, 469–572.
- Curry, D. H., Caplan, P., & Knuppel, J. (1994). Transfer of training and adult learning (TOTAL). *Journal of Continuing Social Work Education*, 6(1), 8–14.

- Danielson, C. C., & Wiggenhorn, W. (2003). The strategic challenge for transfer: Chief learning officers speak out. In E. F. Holton & T. T. Baldwin (Eds.), *Improving Learning Transfer in Organizations* (pp. 16–38). San Francisco: Jossey-Bass.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Dickinson, L. (1995). Autonomy and motivation: A literature review. *System*, 23(2), 165–174.
- Duffield, C., & Franks, H. (2001). The role and preparation of first-line nurse managers in Australia: Where are we going and how do we get there? *Journal of Nursing Management*, 9, 87–91.
- Elangovan, A. R., & Karakowsky, L. (1999). The role of trainee and environmental factors in transfer of training: An exploratory framework. *Leadership and Organizational Development Journal*, 20(5), 268–275.
- Facteau, J. D., Dobbins, G. H., Russell, J. E. A., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management*, 21(1), 1–25.
- Field, A. (2005). *Discovering Statistics Using SPSS*. London: Sage Publications Ltd.
- Finkler, S. A. (1991). Variance analysis: Part 1, extending flexible budget variance analysis to acuity. *Journal of Nursing Administration*, 21(7/8), 19–25.
- Foxon, M. (1993). A process approach to the transfer of training. *Australian Journal of Education Technology*, 9(2), 130–143.
- Franke, A. L., Garssen, B., & Huijter Abu-Saad, H. (1995). Determinants of changes in nurses' behaviour after continuing education: A literature review. *Journal of Advanced Nursing*, 21, 371–377.
- Garavaglia, P. L. (1993). How to ensure transfer of training. *Training and Development*, 47, 63–68.
- Gaudine, A. P., & Saks, A. M. (2004). A longitudinal quasi-experiment on the effects of post-training transfer interventions. *Human Resource Development Quarterly*, 15(1), 57–76.

- Gegenfurtner, A., Festner, D., Gallenberger, W., Lehtinen, E., & Gruber, H. (2009). Predicting autonomous and controlled motivation to transfer training. *International Journal of Training and Development*, 13(2), 124–138.
- Georgenson, D. (1982). The problem of transfer calls for partnership. *Training and Development*, 36(10), 75–78.
- Gist, M. E., Schwoerer, C., & Rosen, B. (1989). Effects of alternative training methods on self-efficacy and performance in computer software training. *Journal of Applied Psychology*, 74, 884–891.
- Goldstein, I., & Gilliam, P. (1990). Training system issues in the year 2000. *American Psychologist*, 45, 134–143.
- Gould, D., Kelly, D., Goldstone, L., & Maidwell, A. (2000). The changing training needs of clinical nurse managers: Exploring issues for continuing professional development. *Journal of Advanced Nursing*, 34(1), 7–17.
- Harrison, A. W., Ranier, R. K., Jr., Hochwarter, W. A., & Thompson, K. R. (1997). Testing the self-efficacy-performance linkage of social-cognitive theory. *Journal of Social Psychology*, 137(1), 79–87.
- Hatcher, L., & Stepanski, E. J. (1994). *A step-by-step approach to using the SAS system for univariate and multivariate statistics*. Cary, NC: SAS.
- Heaven, C., Clegg, J., & Maguire, P. (2005). Transfer of communication skills training from workshop to workplace: The impact of clinical supervision. *Patient Education and Counseling*, 60, 313–325.
- Holladay, C. L., & Quinones, M. A. (2003). Practice variability and transfer of training: The role of self-efficacy generality. *Journal of Applied Psychology*, 88(6), 1094–1103.
- Holton, E. F. (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly*, 7(1), 5–21.
- Holton, E. F., & Baldwin, T. T. (2003). *Improving learning transfer in organizations*. San Francisco: Jossey-Bass.
- Holton, E. F., III, & Bates, R. (1998). LTSI: Learning transfer system inventory administrators guide. (Administrators guide). Baton Rouge, LA: Louisiana State University, Human Resource Education, and Workforce Development.

- Holton, E. F., III, Bates, R. A., Bookter, A. I., & Yamkovenko, V. B. (2007). Convergent and divergent validity of the Learning Transfer System Inventory. *Human Resource Development Quarterly*, *18*, 385–419.
- Holton, E. F., III, Bates, R. A., & Ruona, W. E. A. (2000). Development of a generalized Learning Transfer System Inventory. *Human Resource Development Quarterly*, *11*(4), 333–360.
- Holton, E. F., III, Bates, R. A., Seyler, D., & Carvalho, M. (1997). Toward construct validation of a transfer climate instrument. *Human Resource Development Quarterly*, *8*, 95–113.
- Huczynski, A. A., & Lewis, J. W. (1980). An empirical study into the learning transfer process in management training. *Journal of Management Studies*, *17*, 227–240.
- Kaufman, R. (2002). Resolving the (often deserved) attacks on training. *Performances Impermanency*, *41*(6), 5-6.
- Kim, H. (2004). Transfer of training as a sociopolitical process. *Human Resource Development Quarterly*, *15*(4), 497–501.
- Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels*. San Francisco: Berret-Koehler Publishers.
- Kirwan, C., & Birchall, D. (2006). Transfer of learning from management development programmes: Testing the Holton model. *International Journal of Training and Development*, *10*(4), 252–268.
- Knowles, M. (1984). *Androgogy in action*. San Francisco: Jossey-Bass.
- Kontoghiorghes, C. (2001). Factors affecting training effectiveness in the context of the introduction of new technology—A US case study. *International Journal of Training and Development*, *5*, 248–260.
- Kontoghiorghes, C. (2004). Reconceptualizing the learning transfer conceptual framework: Empirical validation of a new systemic model. *International Journal of Training and Development*, *8*(3), 210–221.
- Lalli, W. R. (2003). *Handbook of budgeting* (5th ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Landers, M. G. (2000). The theory-practice gap in nursing: The role of the nurse teacher. *Journal of Advanced Nursing*, *32*, 1550–1556.

- Lauder, W., Reynolds, W., & Angus, N. (1999). Transfer of knowledge and skills: Some implications for nursing and nurse education. *Nurse Education Today*, 19, 480–487.
- Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. NY: Cartwright. Harper and Brothers Publisher.
- Lim, G. S., & Chan, A. (2003). Individual and situational correlates of motivation for skills upgrading: An empirical study. *Human Resource Development International*, 6, 219–242.
- Lim, D. H., & Johnson, S. D. (2002). Trainee perception of factors that influence learning transfer. *International Journal of Training and Development*, 6(1), 36–48.
- Locke, F. & Latham, G. P. (1984). *Goal setting: A motivational technique that works!* Englewood Cliffs, NJ: Prentice-Hall.
- Loo, R., & Thorpe, K. (2004). Making female first-line nurse managers more effective: A Delphi study of occupational stress. *Women in Management Review*, 19(2), 88–97.
- Mathena, K. A. (2002). Nursing manager leadership skills. *Journal of Nursing Administration*, 32(3), 136–142.
- Mathieu, J. E., Martineau, J. W., & Tannenbaum, S. I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel Psychology*, 46, 125–147.
- Merriam, S., & Leahy, B. (2005). Learning transfer: A review of the research in adult education and training. *Journal of Lifelong Learning*, 14, 1–24.
- Meyer, E., Lees, A., Humphris, D., & Connell, N. A. D. (2007). Opportunities and barriers to successful learning transfer: Impact of critical care skills training. *Journal of Advanced Nursing*, 60(3), 308–316.
- Milne, D., Gorenski, O., Westerman, C. Leck, C., & Keegan, D. (2000). What does it take to transfer training? *Psychiatric Rehabilitation Skills*, 4(2), 259–281.
- Milne, D., Woodward, K., Hanner, S., Icton, J., Fitzsimmons, A., & Rochester, J. (2003). An illustration of delivering evidence-based practice through staff training: Multi-dimensional process, outcome and organizational evaluation. *Behavioural and Cognitive Psychotherapy*, 31, 85–98.

- Naquin, S. S., & Holton, E. (2003). Motivation to improve work through learning in human resource development. *Human Resource Development International*, 6(3), 355–370.
- Newstrom, J. W. (1986). Leveraging management development through the management of transfer. *Journal of Management Development*, 5(5), 33–45.
- Noe, R. A. (1986). Trainees' attributes and attitudes: Neglected influences on training effectiveness. *Academy of Management Review*, 11(4), 736–749.
- Noe, R. A., & Schmitt, N. (1986). The influence of trainee attitude on training effectiveness: Test of a model. *Personnel Psychology*, 39, 497–523.
- Osborne, J. W. (2010). Improving your data transformations: Applying the Box-Cox transformation. *Practical Assessment, Research & Evaluation*, 15(12), 1–9.
- O'Sullivan, E., Russell, G. R., & Berner, M. (2003). *Research methods for public administrators* (4th ed.). New York: Addison-Wesley Longman, Inc.
- Patel, L. (2010). 2010 state of the industry report. *American Society for Training and Development*. Retrieved August 31, 2011 from <http://www.astd.org/>
- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction* (3rd ed.). New York: Holt, Rinehart & Winston.
- Phillips, P. P., & Phillips, J. J. (2001). Symposium on the evaluation of training [Letter to the editor]. *International Journal of Training and Development*, 5(4), 240–247.
- Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business, Cambridge, September*, 52–63.
- Robbins, S. (1993). *Organizational behavior*. (6th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Rouiller, J., & Goldstein, I. L. (1993). The relationship between organizational transfer climate and positive transfer of training. *Human Resource Development Quarterly*, 4(4), 377–390.
- Ruona, W. E. A., Leimbach, M., Holton, E. F., III, & Bates, R. (2002). The relationship between learner utility reactions and predicted learning transfer among trainees. *International Journal of Training and Development*, 6(4), 218–228.

- Ryan, R. M., & Deci, E. L. (2000). A self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78
- Saks, A. M., & Belcourt, M. (2006). An investigation of training activities and transfer of training in organizations. *Human Resource Management*, 45(4), 629–648.
- Salas, E., & Cannon-Bowers, J. A. (2001). The science of training: A decade of progress. *Annual Review of Psychology*, 52, 471–499.
- Seyler, D. L., Holton, E. F., III, Bates, R. A., Burnett, M. F., & Carvalho, M. A. (1998). Factors affecting motivation to transfer training. *International Journal of Training and Development*, 2(1), 2–16.
- Swanson, R. A. (1996). In praise of the dependent variable. *Human Resource Development Quarterly*, 7(3), 203–207.
- Swanson, R. A., & Holton, E. F., III, (2001). *Foundations of human resource development*. San Francisco: Berrett-Koehler.
- Tracey, J. B., Tannenbaum, S. I., & Kavanaugh, M. J. (1995). Applying trained skills on the job: The importance of the work environment. *Journal of Applied Psychology*, 80(2), 239–252.
- Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.
- Waddell, D. L. (1990). *The effects of continuing education on nursing practice: A meta-analysis* (Unpublished doctoral dissertation). University of Georgia.
- Waddell, D. L. (1991). The effects of continuing education on nursing practice: A meta-analysis. *Journal of Continuing Education in Nursing*, 22, 164–168.
- Wexley, K. N., & Baldwin, T. T. (1986). Posttraining strategies for facilitating positive transfer: An empirical exploration. *Academy of Management Journal*, 29, 503–520.
- Wexley, K. N., & Latham, G. P. (1981). *Developing and training human resources in organizations*. Glenview, IL: Scott Foresman.
- Wexley, K. N., & Nemeroff, W. F. (1975). Effectiveness of positive reinforcement and goal setting as methods of management development. *Journal of Applied Psychology*, 60(4), 446–450.
- Wlodkowski, R. J. (1999). *Enhancing adult motivation to learn*. San Francisco: Jossey-Bass.

- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(2), 361–384.
- Xiao, J. (1996). The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China. *Human Resource Development Quarterly*, 7(1), 55–73.
- Yahgi, A., Goodman, D., Holton, E. F., III, & Bates, R. (2008). Validation of the Learning Transfer System Inventory: A study of supervisors in the public sector in Jordan. *Human Resource Development Quarterly*, 19(3), 241–262.
- Yamkovenko, B. V., Holton, E., III, & Bates, R. A. (2007). The learning transfer system inventory (LTSI) in Ukraine. *Journal of European Industrial Training*, 31(5), 377–401.
- Yamhill, S., & McLean, G. N. (2001). Theories supporting transfer of training. *Human Resource Development Quarterly*, 12(2), 195–208.

APPENDICES

Appendix A: IRB Approval by NCSU

Date: May 12, 2010

Project Title: The relationship of motivational factors and peer support on transfer of budget training in nurse managers working in acute care hospital settings

IRB#: **1464-10-5**

Dear Ms. Thomas,

The project listed above has been reviewed by the NC State Institutional Review Board for the Use of Human Subjects in Research, and is approved for one year. **This protocol will expire on May 10, 2011 and will need continuing review before that date.**

NOTE:

1. You must use the attached consent forms which have the approval and expiration dates of your study.
2. This board complies with requirements found in Title 45 part 46 of The Code of Federal Regulations. For NCSU the Assurance Number is: FWA00003429.
3. Any changes to the protocol and supporting documents must be submitted and approved by the IRB prior to implementation.
4. If any unanticipated problems occur, they must be reported to the IRB office within 5 business days by completing and submitting the unanticipated problem form on the IRB website.
5. Your approval for this study lasts for one year from the review date. If your study extends beyond that time, including data analysis, you must obtain continuing review from the IRB.

Sincerely,



Debra Paxton
NC State IRB

Appendix B: Letter to Senior Nurse Leaders

Dr. Sr. Nurse Leader,

I am a doctoral student in the Adult Education program at NCSU. I am presently working on my dissertation and would greatly appreciate your assistance with my study.

My study involves measuring transfer of training in nurse managers with 24/7 responsibility for one or more nursing units, responsibility for the development and implementation of their unit operational budgets. I will be using a control and experimental group for the study.

The experimental group will be asked to complete a nursing specific finance training course online and receive Nursing contact hours. The control group will have completed a recent training course.

Immediately after completion of the course the experimental group will be asked to complete an online survey. The control group will complete online survey, but there will be varying times between completion of training and the time they complete the data collection survey.

Data will also be collected from all participants related to years in present position and whether or not they have ever completed a formal degree or received a certification in finance, administration, or business.

To complete this study I need your assistance in working with me in the collection of the data for my work. Your role would be to give me access to names, email addresses of potential participants (nurse managers) within your supervision to participate in the study.

I hope that you will help me with this study for the further advancement of research in the field of transfer of training in nurse managers. All names with specific data will be kept confidential. Only the researcher will have full access to this information. Any reporting of the data will provide anonymity to all involved.

If you have questions or concerns please feel free to contact me at 336-953-7610.

Thank you in advance for your time.

Sincerely,
Deana Thomas, RN, MSN
NCSU Doctoral Student

Appendix C: NCSU Informed Consent Form (Senior Nurse Manager)
North Carolina State University
INFORMED CONSENT FORM for RESEARCH

The Relationship of Motivation to Transfer, Transfer Effort-Performance Expectations, Performance-
Outcomes Expectations, Self-efficacy, Learner Readiness, Peer Support and Transfer of Training in
Nurse Managers Working in Acute Care Hospital Settings

Principal Investigator Deana K Thomas Faculty Sponsor Dr. Timothy Hatcher

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

To determine if motivational factors as measured by a survey based on Learning Transfer System Inventory motivation to transfer questions. after receiving online finance training or other training have an effect on transfer of training.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to ask your direct reports (nurse managers with 24 hour/7 days per week responsibility for the nursing department including the operational budget) to participate in the study. For those that agree to participate we are asking that you provide contact information (names and email addresses) of nurse managers meeting this criteria. This should require less than 30 minutes of your time at the initial phase of the study. The research will take place via computer/email/phone.

Risks

There is the potential for your direct reports to feel anxiety related to the specific monitoring of their performance during this study. Some direct reports may desire not to participate causing a potential change in your relationship with them. All information will be kept confidential and you will only receive study results in group form versus individual and the participants will be made aware of this at the time they are approached by the principal investigator seeking their participation.

Benefits

This study will potentially indicate if motivational factors have an influence on transfer of training. This in turn will lead to further studies to replicate the results and determine if motivational factors need to be studied further as potential items for organizations to enhance in an effort to increase the transfer of training into the work setting.

Confidentiality

The information in the study records will be kept confidential. Data will be stored securely in the principal investigators computer system with password protection until the results of the study as a group will be reported. No reference will be made in oral or written reports which could link you to the study. A number will be assigned to each participant to increase anonymity of study participants. Email addresses will be used to correspond with yourself and participants in the collection of information and data for the study.

Compensation

For participating in this study you will receive free access to an online nursing finance training session that provides 1 contact hour of CNE credit. Participants in the experimental group will receive the free training during the study. Senior Nurse Leaders and those participants in the control group will receive the same opportunity to complete the online nursing finance training session as the control group after the study is completed.

What if you are an employee?

Participation in this study is not a requirement of your employment at your organization, and your participation or lack thereof, will not affect your job.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, Deana K. Thomas, RN, MSN, at dthomas@randolphhospital.org, or 336-953-7610 (mobile).

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Subject's signature _____

Date _____

Investigator's signature _____

Date _____

Appendix D: Letter to Nurse Managers

Dear. Nurse Manager,

I am a doctoral student in the Adult Education program at NCSU. I am presently working on my dissertation and would greatly appreciate your assistance with my study.

My study involves measuring transfer of training in nurse managers with 24/7 responsibility for one or more nursing units, and responsibility for the development and implementation of their unit operational budgets. I will be using a control and experimental group for the study.

The experimental group will be asked to complete a nursing specific finance training course online and receive Nursing contact hours. The control group will be given the opportunity to complete the same course after the study is completed.

Immediately after completion of the course the experimental group will be asked to complete an online survey. The control group will complete the online survey after the experimental group has completed the survey.

Data will also be collected from all participants related to years in present position and whether or not they have ever completed a formal degree or received a certification in finance, administration, or business.

To complete this study I need your assistance in working with me in the collection of the data for my work. Your role would be to participate in either the control or experimental group as indicated above.

I hope that you will help me with this study for the further advancement of research in the field of transfer of training in nurse managers. All names with specific data will be kept confidential. Only the researcher will have full access to this information. Any reporting of the data will provide anonymity to all involved.

If you have questions or concerns please feel free to contact me at 336-953-7610.

Thank you in advance for your time.

Sincerely,
Deana Thomas, RN, MSN
NCSU Doctoral Student

Appendix E: NCSU Informed Consent Form (Nurse Manager)
North Carolina State University
INFORMED CONSENT FORM for RESEARCH

The Relationship of Motivation to Transfer, Transfer Effort-Performance Expectations, Performance-Outcomes Expectations, Self-efficacy, Learner Readiness, Peer Support and Transfer of Training in Nurse Managers Working in Acute Care Hospital Settings
Principal Investigator Deana K Thomas Faculty Sponsor Dr. Timothy Hatcher

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for should require approximately 1 hour (for experimental group participants only), and the survey post-training should take 10 minutes of your time. The research will take place via computer/email/phone.

Risks

There is the potential for your direct supervisor to monitor you budget performance closer than usual due to the study potentially creating anxiety related to this monitoring. All information will be kept confidential and study results will only be submitted in group form versus individual.

Benefits

This study will potentially indicate if motivational factors have an influence on this change in budget performance if noted. This in turn will lead to further studies to replicate the results and determine if motivational factors need to be studied further as potential items clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

To determine if motivational factors as measured by a survey based on Learning Transfer System Inventory motivation to transfer questions. after receiving online finance training or other training have an effect on transfer of training.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to complete an online finance/budget training course and complete a survey immediately post-training if you are in the experimental group. If you are in the control group you will be asked to complete a similar survey based on your most recent training course completed. You will then be asked

about the number of years you have been in your present position and any education or certifications you have in finance, administration, or business. This survey consisting of questions related to motivation factors. The online training for organizations to enhance in an effort to increase the transfer of training into the work setting.

Confidentiality

The information in the study records will be kept confidential. Data will be stored securely in the principal investigators computer system with password protection until the results of the study as a group will be reported. No reference will be made in oral or written reports which could link you to the study. Email addresses will be used to correspond with yourself and participants in the collection of information and data for the study.

Compensation

For participating in this study you will receive free access to an online nursing finance training session that provides 1 contact hour of CNE credit. Participants in the experimental group will receive the free training during the study. Senior Nurse Leaders and those participants in the control group will receive the same opportunity to complete the online nursing finance training session as the experimental group after the study is completed.

What if you are an employee?

Participation in this study is not a requirement of your employment at your organization, and your participation or lack thereof, will not affect your job.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the researcher, Deana K. Thomas, RN, MSN, at dthomas@randolphhospital.org, or 336-953-7610 (mobile).

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919/515-4514).

Consent To Participate

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Subject's signature _____

Date _____

Investigator's signature _____

Date _____

Appendix F: Learning Transfer System Inventory Survey Questionnaire

Please circle the number (1, 2, 3, 4, or 5) to the right of each item that most closely reflects your opinion about training.

1 = strongly disagree
4 = agree

2 = disagree
5 = strongly agree

3 = neither agree nor disagree

For the following items please think about “Finance and Budgeting for Nurse Managers” training

1. Prior to the training, I knew how the program was supposed to affect my performance
2. Training will increase my personal productivity
3. When I leave training, I can't wait to get back to work to try what I learned.
4. I believe the training will help me do my current job better
5. Before the training, I had a good understanding of how it would fit my job-related development.
6. I knew what to expect from the training before it began.
7. My colleagues appreciate my using new skills I have learned in training.
8. My colleagues encourage me to use the skills I have learned in training.
9. At work, my colleagues expect me to use what I learn in training.
10. My job performance improves when I use new things that I have learned.
11. The harder I work at learning, the better I do my job.
12. For the most part, the people who get rewarded around here are the ones that do something to deserve it.
13. When I do things to improve my performance, good things happen to me.
14. Training usually helps me improve my productivity.

15. The more training I apply on my job, the better I do my job.
16. My job is ideal for someone who likes to get rewarded when they do something really good.
17. I am confident in my ability to use new skills at work.
18. I never doubt my ability to use newly learned skills on the job.
19. I am sure I can overcome obstacles on the job that hinder my use of my new skills or knowledge.
20. At work, I feel confident in using what I learned in training even in the face of difficult or taxing situations.

Appendix G: Emails to Study Participants

From: Thomas Deana

Subject: Deana Thomas Dissertation Participation Request to Senior Nursing Leader

My name is Deana Thomas and I am a graduate student at NCSU pursuing my doctoral degree in Adult Education. I am emailing to ask for your and your nurse managers participation in my dissertation study. I really need your help in the completion of this study. I have obtained approval from your Sr. Nursing Leader and the hospital IRB committee to ask for your participation.

The attached document describes the study and your positive response to this email will be considered consent to participate.

All participants will be kept anonymous. I have other hospitals involved in the study and ID numbers will be assigned to participants in the study.

Time requirements for nurse managers in the control group would be less than 1 hour to answer 3 short answer questions. Time requirements for those in the experimental group would be 2 hours due to the completion of a 1 hour online finance/budgeting education course and a 22 item likert questionnaire. Those in the control group will be given the opportunity to complete the online training after the study is completed.

Please call or email me with any questions you may have. I look forward to hearing from you in the near future.

Deana Thomas (NCSU graduate student)

Subject: Deana Thomas Dissertation Participation Request to Nurse Manager

Hi _____,

All the participants will receive the opportunity to complete the online finance/budget training class for a free contact hour and a short survey. I hope you will help me by completing the education and survey within the next two weeks. I am including the links to this email also.

The online finance/budgeting class: <http://www.hcprofessor.com>

Your **User Name** is: your email address

Your **password** is: your first initial followed by your last name, all lowercase (ex. dthomas)

The survey is located at: <http://www.surveymonkey.com/s/LTSI>

Thanks so much for your help with this and let me know if you have any problems with either site.

Deana Thomas (NCSU Graduate Student)