

PROMOTING TEACHER EFFECTIVENESS THROUGH A HOLISTIC WELLNESS MODEL

Dana Harwell, Mae Daniel

The University of West Alabama, Livingston, USA
E-mail: dharwell@uwa.edu, mdaniel@uwa.edu

Abstract

Research was conducted to determine if a holistic wellness model could promote teacher effectiveness with 54 teacher interns at a Mississippi campus. The purpose of this research was to determine whether holistic wellness as defined by creative self, coping self, social self, essential self, and physical self as measured by the 5F-Wel can be used to predict teacher effectiveness as measured by the STAI. The research question proposed for this study was: Is there a relationship between wellness as measured by the Five Factor Wellness Inventory and effective teaching as measured by the STAI?

The research design was correlational. A convenience sample of voluntary participants among the 54 teacher interns was used. The predictor variables were the second order factor scores on the 5F-Wel. These factors are creative self, coping self, social self, essential self, and physical self. The dependent variable was the overall formative score on the Student Teacher Assessment Instrument (STAI). Effective teacher research supported the Student Teacher Assessment Instrument as a viable measure of teacher effectiveness. The results obtained show the predictor variables included in the multiple linear regression analysis did not predict teacher effectiveness as measured by the STAI at an accuracy greater than chance. A statistically significant relationship between the predictor variables and dependent variable was not found. Specifically, wellness as measured by the second order factors on the 5F-Wel did not predict teacher effectiveness as measured by the STAI in this study.

Recommendations were to replicate this study using similar methodology in other geographical locations. Being that guidelines of state universities are of unison, it can be assumed that dissimilarities exist among the individual programs. Therefore, replicating this study at another university could provide dissimilar results or possibly identify a specific characteristic from an intern population that would benefit from a holistic wellness model.

Key words: *teacher efficacy, teacher wellness, holistic wellness, student teacher.*

Introduction

Characteristics of effective teaching are an ever-present theme in educational research. The vast amount of educational research focuses on strategies and techniques used by effective teachers. Holistic wellness has recently become an important factor in educational research. Wellness research has focused on schools, colleges, and subsequent job satisfaction. Myers, Sweeney, and Witmer (2000a) noted Wellness refers to a holistic approach in which mind, body, and spirit are integrated. It is a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated in a purposeful manner with a goal of living life more fully. Wellness is more than the absence of disease, a state defined as "health", and incorporates a concern for optimal functioning. A relationship between holistic wellness and effective teaching has yet to be established. To address this possible association, the current study seeks to examine the relationship between wellness and effective teaching, adding to the existing body of research on effective teaching.

Problem of Research

The problem of this study is that it is not known if there is there a relationship between wellness as measured by the Five Factor Wellness Inventory and effective teaching as measured by the STAI? Research was conducted to determine whether holistic wellness as defined by creative self, coping self, social self, essential self, and physical self as measured by the 5F-Wel can be used to predict teacher effectiveness as measured by the STAI. The need for teachers that exhibit wellness has been reported by Myers and Sweeney (2005a). They recommended that “the promotion of schoolwide well-being will enrich the academic experience of students and families. In addition, school staff members who are aware and knowledgeable of wellness concepts may be more likely to apply healthy strategies in the curriculum and throughout the school” (p. 232).

Research Focus

The focus of this research was to determine if there was a relationship between wellness and effective teaching. A discussion of wellness, a discussion of teacher effectiveness, and The Student Teacher Assessment Instrument is presented. Research reveals several definitions of wellness. Each focuses on wellness being more than physical health. Definitions include individuals striving to reach a goal through a continual process of self improvement. The following sections include a definition of models. The definitions provide a basic understanding of wellness and are the foundation for wellness models. The following section provides definitions of wellness and descriptions of wellness models dating back to the 1960s. Measures of holistic wellness have been developed from the models.

Discussion on Wellness

The modern wellness movement has roots in the 1960s’ work of Halbert Dunn. According to Dunn (1961), wellness was defined as “an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires that the individual maintain a continuum of balance and purposeful direction within the environment where he is functioning” (p.4). Subsequently, Hettler (1984) provided a definition of wellness as “an active process through which people become aware of, and make choices toward, a more successful existence” (p.14). Additional definitions of wellness have been offered by Travis, Ardell, Gage, and others that substantiate the division between physical health and wellness and highlight the association of wellness being a process and an outcome (Myers & Sweeney, 2005a).

Multiple models of wellness have been developed to explain wellness. Of these models, Dunn’s High-Level Wellness (1961) was used to describe wellness. Dunn stated that the goal of a well person was to grow toward wholeness, maturity, and self-fulfillment. Hettler’s Hexagon (1984) illustrated wellness as having six components: physical, emotional, occupational, social, intellectual, and spiritual. According to Hettler, time and energy should be equally divided to focus on each of the six components. More recently, Myers, Sweeney, and Witmer (2000b) developed the Wheel of Wellness model which focused on the meaning and purpose of life being the center of wellness with aspects such as sense of worth, emotional awareness, and coping contributing to holistic wellness. This model led to the development of the Wellness Evaluation of Lifestyle (Myers, Sweeney, & Witmer, 1998a) instrument used to measure wellness.

The Indivisible Self Model of Wellness was developed after more than a decade of research of the Wellness Evaluation of Lifestyle. Through factor analysis, Myers, et al. concluded that three orders of factors existed. The first order factor was holistic wellness and second order factors of creative self, coping self, social self, essential self, and physical self emerged. Third

order factors were intelligence, control, emotions, humor, work, leisure, stress, worth, beliefs, love, friends, cultural identity, gender identity, self care, essence, exercise, and nutrition. From this model, the Five Factor Wellness Inventory (5F-Wel) was developed to measure holistic wellness.

Wellness is currently an important topic in K-12 schools. According to Villalba and Borders (2005), the emphasis on high-stakes testing in the current educational arena has had negative consequences on student wellness. Attention is strictly focused on academic achievement rather than the general well-being of students. In the Wheel of Wellness, education is a life force that directly influences a person's life tasks. Also, the Indivisible Self wellness model identifies education as an institution that directly and indirectly affects lives. Specific factors influenced by education are reported by Myers and Sweeney (2005a).

Physical education classes and sports programs clearly contribute to the Wheel of Wellness's Exercise factor; health and sex education classes support Nutrition, Gender Identity, and Self-Care; Safety Patrol, "bully proofing", conflict resolution, and drug prevention programs likely contribute to Sense of Control, Stress Management, and Problem Solving; cultural celebrations during Black History Month and Hispanic Awareness Month support Cultural Identity; senior service projects enhance Sense of Worth; safety issues related to a specific community can be addressed and resolved through Problem Solving and Creativity; and a school counselor's classroom guidance units, small-group activities, and individual counseling sessions most often address issues related to Emotional Awareness and Coping, Realistic Beliefs, Sense of Control, Sense of Worth, and Self-Care. (p. 229) Myers and Sweeney (2005a) recommended staff development on wellness stating that "the promotion of schoolwide well-being will enrich the academic experience of students and families. In addition, school staff members who are aware and knowledgeable of wellness concepts may be more likely to apply healthy strategies in the curriculum and throughout the school" (p. 232). Also, the behaviorist viewpoint of learning supports the use of modeling as a means of changing behavior. Specifically, Bandura's Social Learning Theory asserted that people can learn by observing others and that most behavior is learned vicariously (Stone, 1998). In summary, a focus on wellness is needed in K-12 schools in order to meet current needs of students. As school faculty and staff members become aware of wellness, they will be better equipped to encourage wellness in students (Myers & Sweeney, 2005a). Research Using Wellness Models Research studies have been conducted using wellness models and inventories to Research Using Wellness Models.

Research studies have been conducted using wellness models and inventories to measure holistic wellness. Among these studies, colleges have been used as research sites. Wellness has been linked to success as a student, later job satisfaction, and maximizing life span. Choate and Smith (2003) described a college course intended to increase success of first year students offered at a small, private southeastern college in the United States. A study was conducted to determine: (a) whether student participation in the course would lead to increased wellness, (b) if students could target specific areas of wellness for change during the semester, (c) if change would occur, would students be aware of such changes, and (d) how relevant the students felt the chosen wellness model was to them. The Wheel of Wellness model of Myers, Sweeney, and Witmer (1998a) was administered early in the course and again within the last month of the course. In addition, students wrote a response paper to identify the components of wellness they had chosen for change, whether they felt their wellness scores had increased, decreased, or remained the same, and if the inclusion of the wellness model had influenced their learning during the course. The data revealed an increase in overall wellness and in the specific areas targeted by students as needing improvement. The areas of improvement included the subscales on the Wheel of Wellness (Myers, Sweeney, & Witmer, 1998a). The subscales include self-regulation, emotional awareness and coping, realistic beliefs, sense of control, work, recreation, leisure, spirituality, friendship, love, sense of humor, nutrition, and self-care. The majority of

the students successfully predicted changes in their wellness scores. The data revealed several themes that were consistent among the students. Students consistently recognized the need to seek assistance for all areas of their lives, received enhanced self awareness through learning about the wellness model, and understood the relationships that exist among the wellness components.

Hermon and Hazler (1999) explored the connection between college students' perception of their psychological well-being and the quality of their lives using a 5-factor wellness model, The Wellness Evaluation of Lifestyle (Myers, Sweeney, & Witmer, 1998a). Through a multivariate regression analysis, it was shown that a relationship exists between five dimensions of wellness and psychological well-being. Hermon and Hazler (1999) indicated implications for higher education in that the colleges and universities are expected to develop more effective ways of supporting students. According to Howard, Lueger, Maling, and Martinovich (1993), the holistic wellness model and psychological well-being can be used as a method for evaluating, assessing, and predicting outcomes in college counseling centers. Kiracofe et al. (1994) noted that universities and colleges should provide "programming focused on the developmental needs of students that maximizes their potential to benefit from an academic experience" (p. 39). Through support of students' wellness, universities and colleges can better prepare students to become successful and effective in future careers.

Connolly and Myers (2003) found a significant proportion of the variance in job satisfaction is accounted for by wellness and mattering. According to Rosenberg and McCullough (as cited in Connolly & Myers, 2003), "the importance of being needed, of being important to others, and of feeling that others are interested in what individuals say and do have been referred to as mattering" (p. 153). This study emphasized the fact that interventions that focus on individual psychological attributes are important to increase job satisfaction.

According to Hettler (1984), there are three advantages to promoting wellness in universities. These are: (a) an increase in student retention, (b) greater success rate after graduation, and (c) longer life. The Wheel of Wellness Model (Myers, Sweeney, & Witmer, 2000b) was used in career planning courses over a period of several semesters. The students would take the survey, use the results to set goals for themselves and work towards those goals through the use of activities included in a supplementary *Wellness Workbook* (Myers, Sweeney, & Witmer, 1998b). Near the end of the semester, the instructors infused the wellness project into the career development activities in order to highlight the need for holistic wellness in all aspects of life. This proactive approach could have a positive influence on career choice, job satisfaction, and productivity of students in teacher education programs. Within the body of literature related to wellness, several themes emerge. Wellness is important in K-12 schools, and it is linked to college success, job satisfaction, and longevity of life. As indicated by Hermon and Hazler (1999), the use of wellness inventories to identify areas of need can be beneficial for universities in the support of students. All of the aforementioned factors relate to success in the teaching profession.

Discussion of Effective Teachers

Interstate New Teacher Assessment and Support Consortium (INTASC) (1992) is a group of state educational agencies and national educational organizations dedicated to the reform of the preparation, licensing, and ongoing professional development of teachers. Created in 1987, INTASC's primary constituency is state education agencies responsible for teacher licensing, program approval, and professional development. Standards developed by INTASC (1992) are widely used. As of July 2004, 34 states and numerous organizations including the American Association of Colleges for Teacher Education, the American Federation of Teachers, the National Education Association, the Association of Teacher Educators, National Board

for Professional Teaching Standards, the National Association of State Directors of Teacher Education and Certification, and the National Council for Accreditation of Teacher Education were members. The INTASC standards are used as guidelines for teacher education programs. The guidelines are intended to provide programs that prepare students to be effective teachers. Within the INTASC standards, several themes appear. These themes are: (a) planning and preparation, (b) communication and interaction, (c) teaching for learning, (d) managing the learning environment, and (e) assessment of student learning. The following is a review of literature related to these themes.

Three of the INTASC (1992) standards directly address planning and preparation. According to standard two, preservice teachers should be able support social, intellectual, and personal development by providing appropriate learning opportunities. Standard three emphasizes planning and implementing lessons that meet needs of diverse learners. Also, standard seven states that teachers should be able to use subject matter, community, and curricular needs as the basis for planning instruction. Recent research concerning planning and implementation has emphasized concepts related to diversity and helping students make connections with the world around them, as well as possessing theoretical knowledge which can ultimately influence lesson planning. Results of a study conducted by the National Research Council which highlights three qualities teachers must possess in order to be effective were reported by Wise (2000). These three qualities are: (a) being able to tap into prior knowledge and clarify misconceptions, (b) having deep understanding of the content and being able to assist students in making connections with the information, and (c) placing a great deal of emphasis on metacognition across the curriculum.

As the teacher assists individual students in establishing connections with personal meaning, the diverse needs are illuminated and met. Wilkinson (2005) suggested that teacher efficacy is related to theoretical knowledge and explicit teaching strategies. Among these strategies is pre-formulation which consists of directly teaching how texts are organized and how to use them. Also, the theoretical knowledge of why something works rather than just that it works allows for the transfer of knowledge and the ability of the teacher to assess practices prior to implementation. This allows for more efficient use of time in the classroom and more effective lessons for the students. Effective teachers understand why they do certain things rather than just how to do those things; therefore, as lessons are implemented, the teacher can meet diverse needs and reach each student in a meaningful way, thereby meeting INTASC standards two, three, and seven.

Verbal, non-verbal, and media-based communication is addressed in INTASC (1992) standard six. This standard also underscores the teacher's role in preparing the environment for student interaction. Effective teachers are able to cultivate an atmosphere which allows and encourages students to share ideas, express questions, and work cooperatively to gain knowledge in a non-threatening environment.

Brophy (2000) summarized research concerning effective teaching. Principles emerging from the literature include teachers providing a supportive classroom environment and opportunities to learn in which the teacher views his/her role as one that manages the environment to enhance learning. All aspects of the curriculum should be aligned to create a cohesive program with emphasis given to the application of content in a variety of meaningful situations. Students are allowed to interact with each other in cooperative groups while learning content, as well as when practicing and applying new knowledge through activities. Teachers should scaffold students' knowledge of content and strategies while keeping the intended goals in mind and establishing high expectations for all students. Communication and teacher-student, as well as, student to student interaction are vital to the learning process. This study correlates with INTASC standard six. Research exists which examines knowledge regarding the techniques, strategies, and methods used by effective teachers to enhance learning skills of their

students. The communication process is a key factor in this research. Specifically, Carter (1997) reported that metacognition is used as a tool for enhancing learning through a strategy termed reciprocal teaching. In reciprocal teaching, the teacher models strategies used by good readers to analyze and comprehend difficult text. The actual process of reciprocal teaching involves the teacher and student engaging in a conversation about the text. Subsequently, students work in small groups to teach the content to each other. This allows the learner the opportunity to develop skills that can be used in later situations. Strategies included in reciprocal teaching are generating questions, summarizing, clarifying, and predicting. INTASC standard six supports the strategies in reciprocal teaching. Within the standard, an effective teacher is expected to cultivate inquiry, collaboration, and interaction among students.

Effective teachers use knowledge of diverse student learning styles, varied developmental stages, problem solving and critical thinking skills, and subject matter knowledge to develop concepts and skills in each discipline. Teachers should be able to create learning opportunities that meet the needs of all the diverse learners in the classroom (INTASC, 1992). Littlewood (2000) presented the results of a study that investigated exemplary teachers' views of their work. Emerging ideas included teachers acting as facilitators in the journey toward knowledge. This differs from the traditional view of teachers being the keepers of knowledge and transferring that knowledge to students. Effective teachers in the study recognized the importance of engaging students in meaningful ways that were connected to their life experiences in order to motivate them to continue learning. Wharton-McDonald, Pressley, and Hampston (1998) conducted a study of nine first-grade teachers who had been designated by language arts coordinators as outstanding in their ability to help students develop literacy skills. Through observational measures of student reading and writing achievement and student engagement, it was determined that primary literacy instruction is a complex balance of high-quality reading and writing experiences and explicit instruction of basic literacy skills. Instructional strategies identified in these classrooms included: (a) coherent and thorough integration of skills with high-quality reading and writing experiences, (b) a high density of instruction (integration of multiple goals in a single lesson), (c) extensive use of scaffolding, (d) encouragement of student self-regulation, (e) a thorough integration of reading and writing activities, (f) high expectations for all students, (g) masterful classroom management, and (h) an awareness of their practices and the goals underlying them (p. 101).

The ability to manage the environment in a manner that promotes social interaction, self motivation, and active learning is imperative to effective teaching. INTASC (1992) standard five addresses this need, and emphasizes the necessity for encouraging student involvement in the learning process. Wang, Haertel, and Walberg (1998) offered information regarding effective classroom teachers. The ability to implement efficient classroom management strategies was found to be the single most important characteristic of effective teachers. In accordance with classroom management skills, teachers as facilitators was a prevailing theme. As such, teachers engaged students in inquiry, discovery, reflection, application, and active learning as they constructed their own knowledge. Students in a classroom with a facilitating teacher spent a great deal of time directing their own learning, managing their time, and locating resources used in the acquisition of knowledge and demonstration thereof. Furthermore, when students encountered difficult content, effective teachers strove to help students make connections to existing knowledge rather than simply repetitiously explaining the subject matter. Students in an effectively managed classroom are not simply disciplined, but they are taught procedures and routines that allow the students to learn self control and self management.

Student Teacher Assessment

Assessment must be used for continuing educational progress of the learners. INTASC (1992) standard eight includes the need for using formal and informal assessment to plan further lessons that encourage optimal intellectual, social, and physical development. Existing research supports this assertion. Helterbran (2005) addressed issues that affect developing lifelong learners versus school long learners and several practices were identified as characteristic of effective teachers. First of all, planning, implementation, and assessment must be aligned in terms of the content as well as the mode of delivery. Next, students should receive timely, meaningful feedback on their work with an opportunity to revisit and correct errors. Last, students should be given opportunities and encouraged to apply the new knowledge in situations other than the classroom.

Preservice teachers from Mississippi complete a mandatory field experience prior to graduation. Competence in teaching is evaluated using the Formative Student Teacher Assessment Instrument (STAI). The items on the STAI were derived from the INTASC (1992) standards. From these standards, the following headings were developed: (a) planning and preparation, (b) communication and interaction, (c) teaching for learning, (d) managing the learning environment, and (e) assessment of student learning. Items on the STAI are intended to evaluate teacher effectiveness. The STAI is consistent with related studies of effective teachers and is aligned with INTASC standards.

Methodology of Research

General Background of Research

The research question for this study is: Is there a relationship between wellness as measured by the Five Factor Wellness Inventory and effective teaching as measured by the STAI? The research design for this study was correlational. The intent of this study was to determine if a relationship existed between teacher effectiveness and holistic wellness. For this study, the sample for this research was a convenience sample.

Sample of Research

The sample for this research consisted of voluntary participants among the 54 Teacher Interns from Mississippi in the spring of 2006. Of the participants, 27 of the 53 reporting birth year indicated being 27 years or older. Slightly more than 3 1/2 (n=27) were 27 years of age or older. With traditional students being defined as students ages 18-23, this places at least half of the current sample in the nontraditional age group for completing an undergraduate degree.

Instrument and Procedures

The 5F-Wel is an inventory designed to identify wellness in the various areas of creative self, coping self, social self, essential self, and physical self. Myers and Sweeney (2005b) assert that each area of wellness contributes to holistic wellness and none are independent of the others. The researcher administered the Five Factor- Wellness Inventory (5FWel) survey and submitted the answer sheets to one of the authors, Myers, for scoring. Scoring procedures for the 5F-Wel are confidential and not available to the public. Once the data was obtained, the researcher entered it electronically into the Statistical Package for Social Sciences (SPSS) 12.0 Statistical Software Package. All data pertaining to the second order wellness factors (creative self, coping self, social self, essential self, and physical self) along with the overall scores on the STAI were entered with coded identifiers.

The data were analyzed using SPSS 12.0. To address the research question, the researcher used the multiple linear regression technique. The multiple linear regression technique has the capability to predict one metric dependent variable from multiple metric independent variables. Hair, et al. (1998) defined metric data as that which is referred to as quantitative data. These measurements identify or describe the possession and degree to which a subject possesses an attribute.

Results of Research

The dependent variable in this study was the overall formative scores on the STAI obtained from each student intern. The participants were enrolled in the spring 2006 semester of teacher internship at a Mississippi university. The STAI scores were obtained as a mandatory component of teacher internship. The university supervisors observed and scored the students' teacher effectiveness using the STAI. These scores are indicative of teacher effectiveness. The mean score was 151.067 (SD = 7.74) of a possible 160. The formative scores on the STAI indicate a variability of 7.74 with a mean of 151.067. This indicates that formative scores on the STAI among the student interns were between approximately 143 and 159 of the possible 160 points. Therefore, the average students earned approximately 94% of the possible points with the lowest scores earning about 89% and the highest scores 99% of the possible points. There is approximately a 10% range of variation in the scores with all scores being in the upper 11% of possible earned points. According to the STAI, the participants were deemed effective.

Predictor variables in this study were the second order factors of the 5F-WEL (creative self, coping self, social self, essential self, and physical self). Three orders of factors are identified in the 5F-Wel. The first order factor is holistic wellness referring to an overlapping and mutually functioning state of mind, body, and spirit. The first order factor is a sum of the second order factors. Second order factors are creative self, coping self, social self, essential self, and physical self. Creative self involves thinking, emotions, control, work satisfaction, and positive humor. Coping self refers to leisure, stress management, self-worth, and realistic beliefs. Friendship and love define social self. Spirituality, gender identity, cultural identity, and selfcare comprise the second order factor of essential self. Finally, physical self is characterized by nutrition and exercise. Third order factors are characteristics that contribute to the second order factors. For parsimony sake, second order factors were chosen as predictor variables for this study. The 5F-Wel surveys were sent to one of the authors, Myers, for scoring. The results were returned in an SPSS file. Individual scores on the 5F-Wel varied with ranges on the scores for the second order factors from 31.25 to 60. The most extreme variation in the range of scores on the 5F-Wel was found in physical self with a difference of 60. The highest physical self score was 97.5. Coping self revealed a variation of 47.37. Social self followed with a difference of 43.75. Creative self and essential self had the least variation with 31.25 each. Means and standard deviations from the current sample and normative sample are reported in Table 1. The means and standard deviations are similar on all scales. However, the current sample means are slightly higher than the normative sample on four of the five scales. Conversely, physical self is slightly lower in the current sample with a mean of 62.31 (SD=7.5) versus the normative mean of 74.85 (SD=9.2). The means and standard deviations reported in Table 1 for current and normative samples indicate that the data for the current sample is consistent with previous research.

Table 1. Descriptive statistics of predictor variables.

Variable	Current Sample (n=52)		Normative Sample n= (1567)	
	M	SD	M	SD
Creative Self	82.53	7.5	78.25	9.2
Coping Self	72.74	9.9	70.64	9.0
Social Self	92.61	9.6	84.20	11.0
Essential Self	87.34	7.9	79.41	10.9
Physical Self	62.31	14.1	74.85	13.0

A Multiple Linear Regression Analysis was used to analyze the relationship between one metric dependent variable and multiple metric predictor variables. The data used for this study conforms to all assumptions associated with the multiple linear regression technique: (a) residuals are normally and independently distributed with equal variance along all values of the linear composite, (b) scores in the independent variables are measured without error, and (c) a linear association exists between scores on the linear 35 composite and scores on the dependent variable (Morse, 2005). The initial check for normality revealed a significant Shapiro-Wilk value indicating violation of this assumption. Square root and logarithm transformations did not eradicate the problem. Following recommendations by Morse (2005) to normalize the data the two most extreme outliers were removed, and the data was then in compliance. Casewise deletion of the data involving outliers was used (Morse 2005). A nonsignificant Shapiro-Wilk value of 0.127 was attained. A group-administration of the 5F-Wel was used to gather wellness. Finally, the assumption of linearity was tested. An inspection of partial regression plots revealed linear association between scores on the linear composite and scores on the dependent variable. Curvilinear patterns were not detected in the partial regression plots of the variables, which would have indicated a violation of the assumption of linearity. None of the correlations were high enough to be of concern as indicated by an inspection of the correlations of the independent variables and the Variance Inflation Factor (VIF) value for each variable. A VIF of greater than ten is indicative of collinearity or multicollinearity. The VIF values were as follows: creative self=1.928; coping self=1.523; social self=1.544; essential self=1.634; and physical self=1.494.

Table 2. Correlations.

Variable	Cr	Co	S	E	P
Cr	---	0.50	0.52	0.58	0.41
Co		---	0.34	0.37	0.48
S			---	0.46	0.44
E				---	0.38
P					---

Correlations above in Table 2 indicated no problem with collinearity or multicollinearity.

Results of the Multiple Linear Regression Analysis

The datasets utilized for the purposes of this study were appropriate for use with the multiple linear regression technique, according to the guidelines by Hair, et al. (1998) which state that all data must be metric, there must be a single dependent variable, and several independent variables. The purpose of multiple linear regression is to analyze the relationship between one metric dependent variable and multiple metric predictor variables. The data used for this study conforms to all assumptions associated with the multiple linear regression technique: (a) residuals are normally and independently distributed with equal variance along all values of the linear composite, (b) scores in the independent variables are measured without error, and (c) a linear association exists between scores on the linear composite and scores on the dependent variable (Morse, 2005). The initial check for normality revealed a significant Shapiro-Wilk value indicating violation of this assumption. Square root and logarithm transformations did not eradicate the problem. Following recommendations by Morse (2005) to normalize the data the two most extreme outliers were removed, and the data was then in compliance. Casewise deletion of the data involving outliers was used (Morse 2005). A nonsignificant Shapiro-Wilk value of 0.127 was attained. A group-administration of the 5F-Wel was used to gather wellness data. The researcher can attest to the fact that this data was gathered without error in regards to the testing situation. No prompts were given to participants, and all participants were given the same instructions. Finally, the assumption of linearity was tested. An inspection of partial regression plots revealed linear association between scores on the linear composite and scores on the dependent variable. Curvilinear patterns were not detected in the partial regression plots of the variables, which would have indicated a violation of the assumption of linearity. According to Cohen (1988), correlations are deemed moderate when between 0.30 and 0.50. None of the correlations were high enough to be of concern as indicated by an inspection of the correlations of the independent variables and the Variance Inflation Factor (VIF) value for each variable. A VIF of greater than ten is indicative of collinearity or multicollinearity. The VIF values were as follows: creative self=1.928; coping self=1.523; social self=1.544; essential self=1.634; and physical self=1.494. Correlations follow in Table 2 indicated no problem with collinearity or multicollinearity.

For purposes of this study, the regression coefficients (represented by B in Table 3 below) will be interpreted in order to provide a practical interpretation of the regression model.

Table 3. Summary of regression model of holistic wellness predicting teacher effectiveness.

Variables	B	SE	β	t	p
Creative Self	-0.023	0.203	-0.023	-0.115	0.909
Coping Self	-0.234	0.136	-0.301	-1.716	0.093
Social Self	0.058	0.143	0.072	0.407	0.686
Essential Self	0.074	0.179	0.075	0.414	0.681
Physical Self	0.045	0.096	0.082	0.472	0.639

Note. $R^2=0.07$, $F(5, 46) = 0.690$, $p = 0.633$

The variable *creative self* has a coefficient of -0.023 which means that for every unit the dependent variable increases, *creative self* decreases by 0.023 times. *Coping self* also has a

negative coefficient meaning that every time the STAI score increases by one unit, *coping self* decreases by 0.234 times. A positive coefficient of 0.058 is found with *social self* indicating that with every unit of change in the dependent variable, *social self* increases 0.058 times. *Social self* has the highest positive coefficient of 0.074, and *physical self* has a coefficient of 0.045. Although it is negative, coping self has the greatest predictive power in this model. However, as indicated by the significance levels reported in Table 3, none of the variables are statistically significant at an alpha level of 0.05.

Discussion

Two major areas of educational research comprise this literature review: (a) the literature on wellness and (b) literature on the areas of the STAI. Literature on wellness is diverse and plentiful. Of particular importance to the current study is the literature on models of wellness, wellness in schools, wellness in universities, and wellness as it relates to jobs. Myers and Sweeney (2005a) recommended that schools become institutions that promote wellness through knowledge and modeling. Themes that prevail in the literature regarding effective teachers include expertise in planning, implementing, managing, communication and interaction, and assessing a diverse group of learners. These particular themes are echoed in the STAI. Effective teachers must be able to diagnose specific needs, encourage peer interaction, and manage the environment while meeting the community, curricular, and subject area needs. Community needs include that of promoting wellness in students. Currently, the focus on academic achievement and high-stakes testing has sacrificed wellness in students, and “there is a strong need and a public outcry to promote wellness in public schools” (Myers & Sweeney, 2005a, p. 228).

In an era of high stakes testing and accountability in education, teacher effectiveness is an important issue. The success rate with which teachers reach diverse student needs and raise test scores are prevalent themes. Additionally, holistic wellness is a common topic explored in various veins of research. The present study was an attempt to contribute to the current body of educational research by examining the relationship between teacher effectiveness and holistic wellness. It was hypothesized that a better understanding of this relationship might help university teacher education programs in early detection of wellness needs that would ultimately lead to greater teacher effectiveness.

Conclusions

The findings in this study did not support a statistically significant relationship between teacher effectiveness as measured by the STAI and holistic wellness as measured by the 5F-Wel. The predictor variables of creative self, coping self, social self, essential self, and physical self did not predict scores on the STAI to indicate teacher effectiveness at an accuracy greater than chance. Data analysis using the multiple linear regression technique did not show a statistically significant predictive ability of holistic wellness to determine teacher effectiveness for the current sample.

Based on the findings of this study, the predictors included in the multiple linear regression analysis could not be used to predict teacher effectiveness with an accuracy greater than chance. It is recommended that the study be replicated using similar methodology with a different population. Although all state universities adhere to the same guidelines, differences still exist among individual programs. It is recommended that the study be replicated to compare results from the various universities, thereby possibly identifying characteristics of the student teacher population which would benefit from the use of a holistic wellness model in order to promote teacher effectiveness.

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Advised by Laima Railienė, University of Siauliai, Lithuania

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Dana Harwell	Dr., Ph.D., Associate Professor, Station #34, The University of West Alabama, Livingston, AL 35470, USA. E-mail: dharwell@uwa.edu
Mae Daniel	Dr., Ph.D., Assistant Professor, Station #34, The University of West Alabama, Livingston, AL 35470, USA. E-mail: mdaniel@uwa.edu