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# What is Professionalism? The Validation of a Comprehensive Model of Professionalism

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WHAT IS PROFESSIONALISM?  
THE VALIDATION OF A COMPREHENSIVE MODEL OF PROFESSIONALISM

A Thesis  
Presented to  
The Faculty of the Department of Psychological Sciences  
Western Kentucky University  
Bowling Green, Kentucky

In Partial Fulfillment  
Of the Requirements for the Degree  
Master of Science

By  
Andrew Rowland

December 2016

WHAT IS PROFESSIONALISM?  
THE VALIDATION OF A COMPREHENSIVE MODEL OF PROFESSIONALISM

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Professionalism is a term frequently used in organizations yet perceptions of what it means differ from person to person. Given its frequent use and its link to various job outcomes, such as organizational commitment (Bartol, 1979), there is a need to have a universal definition of professionalism. While there are existing models of professionalism these models are typically developed for a specific field or industry. Thus, there is also a need for a comprehensive model of professionalism that can be used across multiple fields and industries. This study worked to develop a model of professionalism that creates a comprehensive model that addresses both of these issues using eleven existing measures of professionalism as its foundation. Four dimensions of professionalism were identified via these models and defined using a combination of existing research and researcher expertise. These dimensions were divided into elements which were used as items in a measure to validate the new model. A five-factor model demonstrated the best fit and was found to have both convergent and discriminant validity.

## **Introduction**

“Professionalism is like pornography: easy to recognize but difficult to define” (Swick, 2000, p. 612). While crude, Swick’s (2000) statement is more accurate than it first appears. Numerous research studies have been conducted in an effort to define and measure professionalism (see e.g., Hall, 1968; Hershberger, Zryd, Rodes, & Stolfi, 2010; Kearney, 2005). However, despite its frequent use in organizations, there is a lack of consensus as to what professionalism means. In this study a comprehensive model and a corresponding measure of professionalism will be developed in order to better understand the construct of professionalism in a way that is applicable across occupational contexts.

### **Why is Professionalism Important?**

Professionalism is often viewed as essential to organizations. This is supported by statements such as “professionalism serves as a tool of social control that informally approves, constrains, or prohibits work behaviors” (Lui, Ngo, & Tsang, 2003, p. 1194), “serious negative consequences will ensue if physicians cease to exemplify the behaviors that constitute medical professionalism” (Swick, 2000, p. 616) and “valuing individual professionalism will be a prerequisite for the industry being able to attract and retain talent in [the] future” (Aho, 2013, p.113). In recent years there have been a number of articles emphasizing the need for professionalism in the workplace (Berk, 2009; Ferguson, 2014; Swick, 2000). The emphasis on professionalism may be due to the belief that professionalism can be used in place of close management (Dinger, Thatcher, Treadway, Stepina, & Breland, 2015) or that it is closely related to organizational values such as integrity (Schaefer, 1984), business ethics, and commitment (Aho, 2013; Brown,

2013; Schaefer, 1984). Whereas these beliefs may appear presumptuous at first, there are studies that support some of these beliefs.

Bartol's (1979) study was one of the first studies to look at the effect of professionalism on job outcomes for computer specialists in several companies. Bartol found that professionalism was positively related to global organizational commitment and inversely linked to turnover expectancy. Bartol also investigated professionalism's influence on role stress and turnover, but professionalism was found to have no discernable effect on either construct.

Likewise, Lui et al. (2003) focused on the relationship between professionalism and three job outcomes: job satisfaction, turnover expectancy, and professional identification. In a sample of accountants, Lui et al. found that professionalism resulted in increased role congruence in participants and had a significant effect on job outcomes. The results of the study showed that professionalism is positively related to both job satisfaction ( $r = .34$ ) and professional identification ( $r = .49$ ), while being negatively related to turnover expectancy ( $r = -.20$ ).

Dinger et al. (2015) also sought to investigate the relationship between certain components of professionalism and job outcomes. Using a sample of IT professionals working in various government agencies, study results suggested that a sense of calling to the field was positively related to intrinsic motivation and affective commitment and that perceived professional autonomy was positively related to satisfaction and performance. These findings are in line with previous research by Bartol (1979) and Kalbers and Fogarty (1995, as cited by Dinger et al., 2015).

Across these three studies, professionalism was linked to turnover expectancy, global organizational commitment, intrinsic motivation, affective commitment, satisfaction, and performance. Given the breadth of these results, it appears as though the value placed on professionalism is well founded, thereby highlighting the importance of understanding this construct.

### **The Need for a Comprehensive Model**

As was previously established, many organizations value professionalism, yet people often have differing perceptions of what professionalism means. A study conducted by Akhtar-Danesh et al. (2013) investigated individual perceptions of professionalism and found that most individuals fell into one of four groups: (a) humanists, who believe professional values include respect and personal integrity; (b) portrayers, who believe professionalism is demonstrated via one's appearance and appropriate expression; (c) facilitators, who believe professionalism involves standards and policies, as well as personal beliefs and values; and (d) regulators, who believe professionalism is fostered by communicating, accepting, and implementing suitable beliefs and standards in the workplace. Despite finding that most individuals fit into one of these groups, each group seemed to favor a particular set of attributes, indicating that perceptions of professionalism may vary greatly from person to person.

Similar trends can be seen in the various definitions of professionalism. Merriam-Webster (11<sup>th</sup> ed.) defines professionalism as “the skill, good judgment, and polite behavior that is expected from a person who is trained to do a job well.” This differs slightly from definitions provided by researchers, who have described professionalism as “having a unique or special knowledge” (Bryan-Brown & Dracup, 2003, p. 394),

embodying the standards of a profession (Suttle, 2011), or “the mindset with which individuals view their occupation” (Dinger et al., 2015, p. 282). Admittedly individual definitions of professionalism tend to share fewer similarities than those provided by organizations and researchers, but the fact that professionalism lacks a uniform definition is clear.

Some organizations and professions have already identified this need for a consensus and have begun investigating and defining professionalism themselves. The American Physical Therapy Association (APTA), for example, developed a model that focuses on areas such as staff performance, compassion and goodwill, and social responsibility (APTA, 2012). The Interprofessional Professionalism Collaboration (IPC) is another example of such an effort, focusing primarily on interprofessional professionalism or the core values demonstrated when staff members from different medical fields collaborate to provide care for patients (IPC, 2016). This research is certainly a step in the right direction, but it is still limited in terms of its utility. The downside of existing models is that they are often tailored to a specific profession or industry. This is particularly obvious in models of professionalism that include elements such as protection of patient privacy (see e.g., Akhtar-Danesh et al., 2013) and confidentiality of patient information (see e.g., Hershberger et al., 2010). Such models, although useful in their own industries or professions, typically are not applicable to other industries and professions. For this reason, the development of a comprehensive model of professionalism that is generalizable across occupational contexts will improve the ability of researchers to further investigate the construct as it relates to other important work outcomes.

## **Existing Models of Professionalism**

Not surprisingly, a number of definitions and models of professionalism have been put forth. One of the older and certainly more robust models of professionalism was developed and published by Hall (1968). Hall developed his model as a method of determining whether a specific occupation could be considered a profession. Assuming the occupation exhibits the components he identified, then it would be considered a profession. Hall's model includes both the structural components and attitudinal attributes related to professionalism. The structural components Hall identified include the creation of a full time occupation, the establishment of a training school, formation of professional associations, and the formation of a code of ethics. The attitudinal attributes include the use of the professional organization as a major reference, a belief that the profession benefits both the public and the practitioner, the belief that the best judge of a professional's work is another professional, a sense of calling to the field, and a feeling that one ought to be able to make their own decisions regarding their work.

Another model, developed by Kerr, Glinow, and Schriesheim (1977), identified five components of professionalism. These included expertise, autonomy, commitment to the work and the profession, identifying with the profession, ethics, and collegial maintenance of standards. The definitions provided for these components have become influential in the development other models, as many models developed after this one include aspects of this model.

Bartol (1979) developed a model of professionalism and a corresponding measure inspired by Hall's (1968) model. Bartol made modifications to this model based on the definitions provided by Kerr et al. (1977), as well as Snizek's (1972, as cited in Bartol,

1979) criticisms of Hall's (1968) model. The elements from Bartol's (1979) model were similar to those in Kerr et al. (1977) and included autonomy, ethics, collegial maintenance of standards, professional commitment, and professional identification.

Baumann and Kolotylo (2009) developed a measure of professionalism in nursing that focused on both the environmental and professionalism attributes that influence the professionalism of nurses. The environmental attributes correlated strongly with professionalism ( $r = .83$ ) and included professional support, environmental culture and climate, and shared governance. The professionalism attributes also correlated strongly with professionalism ( $r = .90$ ) and included autonomy, knowledge, competence, professionhood, accountability, advocacy, collaborative practice, and commitment.

Hershberger et al. (2010) published a study with a premise similar to Baumann and Kolotylo's (2009). They identified fifteen components of professionalism in the medical industry. These included accountability, altruism/advocacy, appearance, commitment to education/development, compassion, confidentiality, cultural sensitivity, ethical standards, initiative, integrity/honesty, respect, reliability/trustworthiness, response to criticism, teamwork, and time management.

Van de Camp, Vernooij-Dassen, Grol, and Bottema (2006) put forth a model for physicians that was very similar to both Hershberger et al. (2010) and Baumann and Kolotylo (2009). Elements, or behaviors, were identified for the model and sorted based on the recipient of the behavior. Professional behaviors towards the patient included integrity, detachment and commitment, respect, and dealing with patient diversity. The second category, professional behaviors towards other professionals, included transmutal care, co-operation with specialists, co-operation with support personnel, leadership, and

collegiality. A third category, behaviors toward the public, included accountability, the ability to make use of the opportunities of the profession, norms and values, quality management, practice management, and evidence-based practice. The final category, professional behavior towards oneself, includes self-reflection, self-confidence, self-welfare, providing and receiving feedback, life-long learning, resilience, dealing with mistakes, dealing with uncertainty, and coping with aggression.

The American Physical Therapy Association (APTA, 2012) developed a model based on prior research from various medical journals that has some overlap with other models of professionalism. The components identified by the APTA's model include accountability, altruism, compassion/caring, excellence, integrity, professional duty, and social responsibility.

Similar to the model developed by the APTA, Kearney (2005) endeavored to define professionalism in anesthesiology. Model components identified as being very important to professionalism included integrity; maintaining confidentiality; adherence to ethical and legal codes; respect for patients' views, dignity, and privacy; respect for colleagues and co-workers; responsibility; accountability for personal actions towards patients, society and the profession; trustworthiness; maturity; empathy; self-awareness; commitment to lifelong learning; cope with uncertainty and error; accept criticism appropriately; maintain balance between personal and professional; vigilance; responsiveness; team work; advocacy; flexibility; decisiveness; manner; confidence; communicativeness; and expert pattern recognition. Elements that were considered slightly less important to the list of professional attitudes included a lack of bias, altruism,

motivation, mentorship, resourcefulness, assertiveness, conflict resolution, fluency, management skills, and leadership.

In addition to the previous research that has been conducted, collaboration between various fields of medicine is currently underway. The IPC (2016), previously mentioned in this paper, is a collaboration focused on interprofessional professionalism. The elements they have identified are considered integral to the concept of interprofessionalism or professionalism across professions. The components identified by the IPC (2016) include communication, respect, altruism and caring, excellence, ethics, and accountability.

Stern and Arnold (2005) focused on the disconnect between a patient's perception of a physician's ability and the physician's professionalism. Stern and Arnold identified four pillars of professionalism: excellence, humanism, accountability, and altruism. These pillars stand on a foundation made up of ethical and legal understanding, communication skills, and knowledge of medicine that Stern and Arnold stated are necessary for professionalism but do not constitute it on their own.

Reviewing the models cited in this paper highlights that there is some overlap between models of professionalism. For instance, models published decades ago and those published in the last few years include elements such as autonomy (Akhtar-Danesh et al., 2013; Baumann & Kolotylo, 2009; Bartol, 1979; Hall, 1968; Kerr et al., 1977) and ethical standards (Akhtar-Danesh et al., 2013; Bartol, 1979; Hershberger et al., 2010; IPC, 2016; Kearney, 2005; Kerr et al., 1977; Stern & Arnold, 2005), among others, suggesting that these elements are consistent over time. These models quite evidently

overlap in certain areas, but what makes each model significant is its individual uniqueness.

Some models, such as Bartol (1979) or Kerr et al. (1977), cover elements that may be considered to be individual characteristics such as ethics, commitment, expertise, and appearance (Hershberger et al., 2010). On the other hand, other models cover elements that might be considered interpersonal components, such as communication (IPC, 2016; Kearney, 2005; Stern & Arnold, 2005), respect (Hershberger et al., 2010; IPC, 2016; Kearney, 2005; Van de Camp et al., 2006), and compassion (APTA, 2012; Hershberger et al., 2010). In addition to the difference in identified elements, many of these models come from different industries, including medicine (Akhtar-Danesh et al. 2013; APTA, 2012; Baumann & Kolotylo, 2009; Hershberger et al., 2010; IPC, 2016; Kearney, 2005; Stern & Arnold, 2005; Van de Camp et al., 2006), science and engineering (Kerr et al. 1977), and information technology (Bartol, 1979).

### **The Current Study**

As has been discussed in previous sections, a definitive definition of professionalism is essential if organizations intend to relate professionalism to other constructs. This is highlighted by the fact that several models presented in this paper were developed for specific medical fields so that professionalism could be assessed and utilized in those fields (e.g., APTA, 2012; Baumann & Kolotylo, 2009; Kearney, 2005). However, most professions do not have established models of professionalism. This is compounded by the fact that there is a lack of consensus in the existing literature. Therefore, this study proposes to utilize the models presented herein to develop both a model and a measure of professionalism that can be utilized across multiple professions.

The model is intended to be more comprehensive than any of the previously presented models by developing explicit definitions for each element identified in the model. The proposed measure will then be based on these definitions. To provide evidence of the construct validity of the model, the proposed measure will be correlated with an alternate measure of professionalism and a measure of impression management to establish convergent validity. To show the utility of the proposed measure and to further existing research, this study also proposes to investigate the relationship between professionalism and certain job outcomes.

Convergent validity is established when there is a positive correlation between two measures that are designed to measure a specific construct (Duckworth & Kern, 2011). When developing a psychological measure such as the measure proposed in this study, it is important to establish convergent validity. For this study, convergent validity will be examined by investigating correlations between the newly developed professionalism measure and both an alternative measure of professionalism and a measure of impression management. Impression management is described as a process of manipulating how one is represented with the intention of influencing how others view them (Blasberg, Rogers, & Paulhus, 2013; Bolino, 1999). Given that individuals are likely to engage in behaviors in a work environment as a means of managing the professional impression they make on others, we believe that professionalism shares similarities with impression management and will, thus, be positively related to it.

*Hypothesis 1:* Professionalism will be positively correlated with (a) an alternative measure of professionalism and (b) impression management.

Professionalism will also be examined in relation to various job outcomes to establish the utility of the measure and to support existing research. As was discussed previously in this paper, both job satisfaction and organizational commitment have been linked to professionalism. Job satisfaction was linked to professionalism by Lui et al. (2003) and to professional autonomy by Dinger et al. (2015), with both finding positive relationships ( $r = .34$  and  $r = .41$ , respectively). Professionalism also has been linked to global organizational commitment (Bartol, 1979), and professional autonomy has been linked to affective commitment (Dinger et al., 2015). Intrinsic motivation, the motivation to perform an activity to experience the emotion inherent to the activity (Kuvaas, 2006), has also been linked to professionalism by Dinger et al. (2015).

It is expected that the results of this study will support previous research. These results will provide further support for the construct validity of the model, as finding similar results suggests that the construct measured in this study is indeed professionalism. In addition, it is believed that the proposed measure of professionalism is more comprehensive than other measures. This is reflected by the detail of the measure. Unlike other measures of professionalism, the proposed measure separates aspects of the element definitions into different items to allow each aspect of the definition to be assessed by the measure. This structure adds degrees of freedom to the measure that cannot be achieved when using an element's full definition as the item. Additionally, many of the elements present in the proposed measure are not present in other measures. Thus, it is probable that the results obtained using the proposed measure will be more reflective of the true nature of the relationship between professionalism and the job outcomes.

*Hypothesis 2:* Professionalism will be positively correlated with (a) job satisfaction, (b) affective commitment, and (c) intrinsic work motivation.

This study also proposes to investigate the relationship between the newly developed professionalism measure and counterproductive work behaviors (CWBs). CWBs are defined as actions that have a negative impact on the organization or people in the organization or actions that inhibit the interests of the organization (Spector & Fox, 2009). CWBs are influenced by a number of factors. For instance, individuals with greater conscientiousness have been shown to be less likely to perform CWBs (Sackett & Devore, 2001). Conscientiousness has also been shown to be predictive of professionalism (Finn, Sawdon, Clipsham, & McLachlan, 2009), which suggests that individuals with high levels of professionalism may also withhold CWB. Given this, it is expected that CWB will be negatively related to the proposed measure of professionalism.

*Hypothesis 2d:* Professionalism will be negatively correlated with CWB.

Discriminant validity, often considered the opposite of convergent validity, is used to ensure that a measure is empirically unique and represents a construct that other measures do not capture (Hensler, Ringle, & Sarstedt, 2015). To establish the discriminant validity of the proposed professionalism measure, incremental variance will be examined to determine if the new measure predicts variance in job outcomes to a greater extent than an alternate measure of professionalism. The proposed measure of professionalism is designed to be a comprehensive measure, and this is reflected by the greater level of detail in the measure. Unlike other measures of professionalism, the proposed model separates professionalism into four dimensions. Each dimension is made

up of several elements representing a facet of professionalism. This method of modeling professionalism may allow for individual dimensions to predict certain job outcomes better than other dimensions or even other measures of professionalism.

Job satisfaction has several antecedents and correlates, including respect and altruism, both of which are included in the relational conduct dimension of the newly proposed professionalism model. Decker and Van Quaquebeke (2015) showed that respectful leadership ( $r = .54$ ) and vertical respect, respect due to expertise, excellence, or status, for their leader ( $r = .48$ ) had a very strong relationship with job satisfaction. Additionally, another study found altruism to be related to job satisfaction (Valentine, Godkin, Fleischman, Kidwell, & Page, 2011). Based on this research, it is expected that relational conduct will be a strong predictor of job satisfaction than a global measure of professionalism.

*Hypothesis 3a:* The relational conduct dimension of professionalism will demonstrate incremental variance over a global measure of professionalism in predicting job satisfaction.

Bartol (1979), one of the models discussed in this paper, includes elements that are present in the professional identity dimension of the proposed model. Specifically, the professional commitment and professional identification elements from Bartol's model are directly related to the commitment and association elements in the proposed model. Bartol found that the five elements identified in her model were positively linked to global organizational commitment. Due to the fact that the professional identity dimension includes elements that refers to the ties between an individual and their

profession, it is expected that this dimension will be more predictive of affective commitment than a global professionalism measure.

*Hypothesis 3b:* The professional identity dimension of professionalism will demonstrate incremental variance over a global measure of professionalism in predicting affective commitment.

Dinger et al. (2015) conducted a study that showed professional autonomy was linked to intrinsic motivation ( $r = .31$ ). Initiative, another element in the self-regulation dimension, has also been linked to intrinsic motivation (Jaramillo, Locander, Spector, & Harris, 2007). These findings suggest that the self-regulation dimension may predict intrinsic work motivation better than a global measure of professionalism.

*Hypothesis 3c:* The self-regulation dimension of professionalism will demonstrate incremental variance over a global measure of professionalism in predicting intrinsic motivation.

In addition, integrity, one of elements in the moral perspective dimension, has been shown in previous research to have an inverse relationship with CWB engagement (Sackett & Devore, 2001). Similarly, a study by Peng (2012) found that CWB was positively linked to unethical behavior ( $r = .77$ ). As both integrity and ideals are components of the moral perspective dimension, it is expected that moral perspective will be a better predictor of CWB than a global measure of professionalism.

*Hypothesis 3d:* The moral perspective dimension of professionalism will demonstrate incremental variance over a global measure of professionalism in predicting CWB engagement.

## Method

This study consisted of a two-stage model and assessment development process. Stage one focused on the development of both a model and corresponding measure of professionalism. The purpose of stage two was to provide psychometric evidence for the model and measure.

### **Stage One: Model Development**

The development of a model of professionalism began with the identification of existing models of professionalism. The primary search engines used for this task were PsycINFO and Google Scholar. These databases were searched using keywords such as *professionalism*, *factors of professionalism*, and *professionalism model*, and the search was restricted to articles from peer-reviewed journals. Articles were identified as relevant and useful if they identified one or more aspects (i.e., elements or dimensions) of professionalism and described the procedure by which they were identified. A total of 11 articles with 137 professionalism elements were identified through this process.

Elements were then reviewed by researchers using several criteria, including generalizability and relevance across multiple professions, similarity to other elements, and the frequency of model inclusion. Items such as *protection of patient privacy* that were deemed irrelevant or non-generalizable across multiple fields were eliminated from the model, and elements that had different names but similar definitions were combined, when possible. After model refinement, 23 elements remained. The researchers identified five professionalism dimensions based on these elements, and the elements were then independently sorted into the dimensions by two members of the research team. Any discrepancy was discussed by the researchers until a consensus was reached.

Upon finalizing the preliminary model, it was presented to a group of seven subject matter experts (SMEs) in the form of a Q-sort. The SMEs consisted of a group of four graduate students and three undergraduate students. The students were research assistants in an industrial-organizational psychology lab. The SMEs sorted each element into one or more dimensions of professionalism. The SMEs were not limited to placing each element into one dimension so that any elements that appeared to be multidimensional would be identified. Four elements were removed due to perceptions of misfit with the construct or overlap with other elements. Additionally, it was determined that a four-factor model better represented the elements. Several dimension and element definitions were refined, and some element names were modified during this process. The refined element definitions were then compared to their definitions in their original sources to ensure that the modifications the researchers made did not distort the meaning of the elements.

The refined model of professionalism was then presented to six of the previous SMEs (i.e., four graduate students and two undergraduate students in an industrial-organizational psychology lab) in the form of a Q-sort. SMEs were instructed to sort elements into the one dimension they felt fit each element best. Based on these results, minor modifications were made. The final model can be found in Appendix A.

### **Stage Two: Model Validation**

The second stage of the study involved assessing the psychometric properties of the professionalism model. The element definitions from the finalized model were used as items to create a measure of professionalism. Most of these definitions were broken

down into multiple items to avoid double-barreled items in the measure, and some items were further modified to improve their wording.

**Participants.** In stage two, data was collected from 469 participants, who were each at least 18 years old, a resident of the United States, spoke English as a first language, worked at least 20 hours per week, and used Amazon Mechanical Turk (MTurk; see Appendix B). Twenty-five of these participants were removed for failing quality control items designed to ensure participant engagement. Two other participants were identified by the researcher as providing low quality data and were thus removed from the data set; therefore, the final data set contained 442 individuals. The sample was 56 percent female and 72 percent White/Caucasian (10.2% Black, 7.2% Asian, and 16.9% other). The average age was 37.3 years ( $SD = 11.4$ ), and average work experience was 16.7 years ( $SD = 11.0$ ). Forty-one percent of participants had a Bachelor's degree, and 23 percent had completed some college. Participants were from a number of different industries. Industries with the highest representation were retail trade or sales, with 11.5 percent, and health care, with 10.6 percent of respondents.

Using MTurk offers several advantages over a traditional laboratory study. Advantages include collecting data faster, having a more diverse sample than merely undergraduate students, and having a lower cost relative to other sampling techniques. Other advantages of MTurk include reducing the chance of researcher biases and ensuring anonymity due to the lack of face-to-face interaction with participants (Crump, McDonnell, & Gureckis, 2013; Sprouse, 2011). In order to assess MTurk as a sampling tool for behavioral research, Crump et al. (2013) replicated several common behavioral studies. Their results indicated that data collected using MTurk corresponds to data

collected in a traditional laboratory setting as long as the experimental methodology is sound. Given the need for an employed sample and the advantages provided by MTurk, its use was highly beneficial for this study.

**Materials.** Study participants provided basic demographic information (see Appendix C) before completing the measures described below.

*Convergent validity measures.* Participants completed the newly developed professionalism measure (see Appendix D). The measure consisted of 44 items rated on a seven-point scale from strongly disagree to strongly agree. Cronbach's alpha for this measure was .97.

The Professionalism – Documentation of Competency (ProDOC), an alternate measure of professionalism, was used to establish convergent validity (see Appendix E). The ProDOC consists of 15 items rated on a seven-point scale from strongly disagree to strongly agree. Some of the ProDOC items were modified slightly to make them relatable to a wider audience. Industry-specific terms in the compassion, confidentiality, cultural sensitivity, respect, and teamwork items were changed to achieve this (e.g., “patient-related information” was changed to “sensitive information”). The Cronbach's alpha obtained for this scale in this study was .92.

To further establish convergent validity, participants also completed the measure of impression management developed by Blasberg et al. (2013), which contains 20 items rated on a seven-point Likert scale from strongly disagree to strongly agree (see Appendix F). Cronbach's alpha for this measure was .80 in the current study.

*Outcome measures.* Four measures of job outcomes were administered to participants to assess criterion-related validity. The measure of job satisfaction (see

Appendix G), the Minnesota Satisfaction Questionnaire short form, was developed by Weiss, Dawis, Engand, and Lofquist (1967) that contains 20 items and is rated on a seven-point scale from completely dissatisfied to completely satisfied. It yielded a Cronbach's alpha of .93.

The measure of affective commitment (see Appendix H) was developed by Jaros, Jermier, Koehler, and Sincich (1993) and contains 14 items rated on a seven-point scale using two contrasting constructs as the scale endpoints for each item (e.g., love and hate). Cronbach's alpha was .96 for this measure.

The intrinsic work motivation measure (see Appendix I) was developed by Kuvaas (2006) and consists of four items that are rated on a seven-point scale ranging from strongly disagree to strongly agree. Cronbach's alpha for this measure was .92.

To assess CWB, Bennett and Robinson's (2000) scale of interpersonal and organizational deviance will be used (see Appendix J). The scale consists of 20 items rated for frequency of occurrence on a seven-point scale from never to daily. Cronbach's alpha for the interpersonal deviance scale was calculated to be .86, and the organizational deviance scale yielded a Cronbach's alpha of .88.

**Procedure.** A survey was administered online using Qualtrics survey software. Participants were compensated \$0.90 for their time.

## **Results**

A parallel analysis indicated that the newly developed professionalism measure contained five factors. Thus, an exploratory factor analysis was then conducted using direct oblimin rotation with five factors specified. Item loadings (see Table 1) were examined for inclusion in the finalized model. Items in which the highest loading on any

factor was less than 0.4, were removed from the model. Other items that met the minimum loading standard but exhibited multidimensionality were also removed. Items that exhibited multidimensionality were item 9, which loaded highest on Professional Identity at -.180, item 13, which loaded highest on Personal Standards at .461, item 21, which loaded highest on Personal Standards at .333, item 33, which had a highest loading of .389 on Personal Standards, item 43, which loaded highest on Personal Standards at .378, and item 44, with a highest loading of .291 on Personal Standards. Thirty-five items remained after this process.

The exploratory factor analysis yielded five dimensions, Personal Standards, Personal Initiative, Compassion, Professional Identity, and Diversity Orientation, each representing a unique aspect of professionalism. Personal Standards incorporates how an individual interacts with others, how they present themselves, and whether they meet normative standards. Personal Initiative involves an individual's initiative in taking on additional tasks or responsibilities at work. The Compassion dimension refers to one's support and understanding of others. Professional Identity addresses how an individual associates with their profession, including both commitment to and perceived value of one's profession. The final dimension, Diversity Orientation, reflects how an individual interacts with others different from themselves and the value they perceive in a diverse group of individuals.

A mean score was calculated for each dimension to standardize the measurements and allow for simpler comparison. A composite score of professionalism was also calculated to provide a global comparison of the dimensions. All factors were then correlated (see Table 2; all factor correlations were significant at  $p < .01$ ). Correlations

between factors ranged from  $r = .44$  between Diversity Orientation and Personal Initiative to  $r = .70$  between Personal Standards and Diversity Orientation. The strong correlations between factors indicate that the factors are highly related to one another.

Hypothesis 1 was tested by correlating each dimension and the professionalism composite with both an existing measure of professionalism (i.e., the ProDOC) and a measure of impression management (see Table 2). Correlating the ProDOC with each dimension yielded several significant correlations ranging from  $r = .58$  between the ProDOC and Personal Initiative to  $r = .91$  between the ProDOC and the professionalism composite. These results support Hypothesis 1a, showing that each dimension identified by this study is related to an established measure of professionalism. Hypothesis 1b was also supported, as impression management yielded small to moderate correlations with the dimensions, with  $r$  values ranging from .14 to .24, and  $r = .23$  with the professionalism composite. Notably, the correlation between the ProDOC and impression management yielded a very similar result at  $r = .26$ .

Hypothesis 2 was tested by correlating each dimension and the professionalism composite with measures of each job outcome (see Table 2). Correlating scores with job satisfaction yielded several significant correlations. Correlations ranged from .31 to .43 for the dimensions and  $r = .44$  for the composite; thus, Hypothesis 2a was supported. Hypothesis 2b was also supported, as affective commitment yielded small to moderate correlations with the dimensions, with  $r$  values ranging from .26 to .41, and  $r = .37$  for the professionalism composite. The dimensions were also significantly correlated with intrinsic work motivation. The largest correlation was with Professional Identity ( $r = .58$ ), and the weakest correlation was  $r = .28$  with Diversity Orientation. The professionalism

composite yielded a correlation of  $r = .41$ ; thus support was provided for Hypothesis 2c. Hypothesis 2d was also supported, as each dimension of professionalism had a moderate negative correlation with CWB, ranging from  $r = -.31$  and  $r = -.56$ . The correlation between the professionalism composite and CWB was  $r = -.55$ .

Most of the sub-hypotheses contained in Hypothesis 3 were unable to be tested directly, as the theorized professionalism dimensions were modified following the exploratory factor analysis. Instead, dimensions from the revised model that shared similarities with the theorized dimension included in each hypothesis were substituted to examine whether the newly developed professionalism measure demonstrated incremental variance over the ProDOC.

Hypothesis 3a addressed the incremental variance demonstrated by Relational Conduct over the ProDOC when predicting job satisfaction. Of the 14 items that were originally expected to load on Relational Conduct, four items loaded on Personal Standards and four items loaded on Compassion. Given this, we tested to see whether Compassion and Personal Standards would demonstrate incremental variance over the ProDOC in predicting job satisfaction. A three-step model was used (see Table 3). The ProDOC was added in the first step, followed by Compassion and Personal Standards in the second step, and the remaining dimensions in step three on an exploratory basis. Step two did not yield a significant change in the adjusted  $R^2$ , but step three yielded a significant change in the adjusted  $R^2$  (adj.  $R^2 = .213$ ,  $\Delta R^2 = .038$ ). The only professionalism dimension reaching significance was Professional Identity ( $\beta = .248$ ). Thus, Hypothesis 3a was not supported; however, there was some support for incremental validity with the Professional Identity dimension in predicting job satisfaction.

Hypothesis 3b was able to be tested, as the theorized Professional Identity dimension emerged in the exploratory factor analysis. A three-step model was used to test this hypothesis (see Table 4), beginning with the ProDOC in step one, Professional Identity in step two, and the remaining professionalism dimensions in step three. These results support Hypothesis 3b, as Professional Identity was a significant predictor of affective commitment after controlling for the ProDOC ( $\beta = .330$ ).

Hypothesis 3c was unable to be tested directly, as it proposed to examine the incremental variance exhibited by Self-regulation over the ProDOC when predicting intrinsic work motivation. Of the 11 items associated with Self-Regulation, two loaded on Personal Initiative and six loaded on Personal Standards. Given this, it was expected that Personal Initiative and Personal Standards would demonstrate incremental variance over the ProDOC in predicting intrinsic work motivation. A three-step model (see Table 5) was used to test this, beginning with the ProDOC in step one, adding Personal Initiative and Personal Standards in step two, and the remaining dimensions in step three. Step two and step three yielded a significant change in the adjusted  $R^2$ . Thus, there was some indirect support provided for Hypothesis 3c, as Personal Initiative exhibited incremental variance ( $\beta = .142$ ) over the ProDOC in predicting intrinsic work motivation. Notably, Professional Identity was also a significant predictor after controlling for ProDOC scores ( $\beta = .583$ ).

Hypothesis 3d was also unable to be tested directly, as it examined the incremental variance demonstrated by Moral Perspective over the ProDOC when predicting CWB. Of the ten items originally associated with Moral Perspective, five loaded on Personal Standards; thus, it was expected that Personal Standards would

exhibit incremental variance over the ProDOC. A three-step model (see Table 6) was used in which the ProDOC was added first, Personal Standards was added in step two, and the remaining professionalism dimensions were added in step three. Personal Standards emerged as a significant predictor ( $\beta = -.305$ ) after controlling for ProDOC scores; thus, there was some indirect support for Hypothesis 3d.

### **Discussion**

Establishing a definitive definition of professionalism is essential for researchers to relate professionalism to other constructs. This is highlighted by the fact that several models presented in this paper were developed for specific fields (e.g., medicine) so that professionalism could be assessed and utilized in those fields (e.g., APTA, 2012; Baumann & Kolotylo, 2009; Kearney, 2005). However, most industries and fields do not have established models of professionalism to utilize. This is compounded by the fact that there is a lack of consensus in the existing literature. Therefore, there is a need for a model and measure of professionalism that can be utilized across multiple industries. Thus, the three major concerns with existing models of professionalism are as follows: (1) models are industry-specific, (2) there is a lack of consensus as to the definition of professionalism, and (3) elements identified by these models are often ambiguous and offer little explanation. The model developed and validated in this study addresses all of these concerns.

After performing an exploratory factor analysis, a five-factor model emerged containing 35 items assessing professionalism. Sixteen items loaded onto factor one, named Personal Standards, which represents one's interactions with others, appearance, and adherence to normative standards. Two items loaded onto factor two, named Personal

Initiative, which represents one's initiative at work in taking on additional tasks or responsibilities. Factor three, named Compassion, had four items and focused on how an individual supports and understands others. Professional Identity, factor four, had five items representing how an individual associates with their profession. The fifth dimension, named Diversity Orientation, had eight items that assesses individual views and behaviors related to diversity. Correlations between factors and the professionalism composite ranged from  $r = .67$  with Work Initiative and  $r = .92$  with Personal Standards. High correlations between the composite variable and Personal Standards ( $r = .92$ ) and Diversity Orientation ( $r = .85$ ) are likely due to the fact that these two factors make up the majority of the items included in the composite variable.

Convergent validity evidence for the professionalism model was provided by high correlations between the ProDOC and each of the professional dimensions. Because the ProDOC is an existing measure of professionalism, these correlations support the claim that the professionalism measure developed in this study does indeed measure professionalism. Notably, the measure presented in this study includes constructs that the ProDOC does not; thus, this may explain some of the smaller correlations. Convergent validity was also expected to be established by correlating the professionalism dimensions with impression management. The correlations obtained by correlating the professionalism factors and the professionalism composite with impression management indicated a small to moderate relationship. At first glance, these correlations may seem to indicate convergent validity is low. However, the ProDOC also had a moderate correlation ( $r = .26$ ), mirroring the relationship exhibited by the measure presented in this study. This indicates that these smaller correlations do not diminish convergent validity.

Instead, it calls into question whether the link between impression management and professionalism is as strong as originally believed.

Evidence of criterion-related validity was garnered by correlating the dimensions of professionalism with various job outcomes. Professionalism was linked to job satisfaction, affective commitment, intrinsic work motivation, and CWB. These results replicate previous research findings and not only further establishes the link between professionalism and these job outcomes, but also demonstrates that this measure of professionalism is similar to those utilized in previous research, as it is also predictive of these work outcomes. However, as one would expect, these correlations varied based on which dimension and job outcome were included. Perhaps one of the most interesting results of this study was the relationship between each of the job outcomes and Professional Identity. When compared to the other four dimensions, Professional Identity yielded the highest correlations with job satisfaction ( $r = .43$ ), affective commitment ( $r = .35$ ), and intrinsic work motivation ( $r = .58$ ). The correlation with intrinsic work motivation is particularly noteworthy, as the next highest correlations were with Personal Initiative and Compassion, both yielding an  $r$  of  $.31$ . Notably, most, if not all, of the items used to assess Professional Identity could also be modified to assess an individual's perceived identity within an organization or job.

The discriminant validity of the professionalism measure was tested using hierarchical regressions to determine if incremental variance was demonstrated over the ProDOC when predicting various job outcomes. Similar to the pattern seen in the correlations with job outcomes, Professional Identity explained additional variance in three out of four of the regression models. In addition to Professional Identity,

incremental variance was demonstrated by Personal Initiative when predicting affective commitment and intrinsic work motivation, Personal Standards when predicting CWBs, and Compassion when predicting affective commitment. Thus, for each of the job outcomes measured in this study, the professionalism measure explained unique variance after controlling for a global measure of professionalism. This not only provides evidence of discriminant validity, but also establishes the utility of the measure, as it has been shown to be a better predictor of these job outcomes than the ProDOC.

### **Limitations and Future Research**

In the current study, several items with low loadings were retained. The minimum loading standard of 0.4 used in this study was chosen to allow the researchers to be more conservative when eliminating items, but it is also possible that preserving items with low loadings has caused some of the correlations reported in this study to be lower than they would be had a higher standard been used. Thus, future research (e.g., a confirmatory factor analysis) should be conducted to continue to strengthen this model and determine its psychometric properties.

As with any online survey tool, the use of MTurk introduces limitations into the study. Because the researcher could not be present when participants completed the survey, it is difficult to determine participant engagement. Researchers are also unable to answer questions from the participants during the study, which could result in participants misunderstanding instructions. However, the benefits of using MTurk (e.g., faster data collection, more diverse sample) outweighed the risks associated with it. Future studies may test this model in alternative samples (e.g., laboratory or within an organization) to determine if these findings are replicated.

The use of self-report measures could also be considered a limitation in this study. It is possible that individuals perceive their level of professionalism to be higher (or lower) than what others would report. However, this is always a possibility when self-report measures are used in research. To further strengthen the results of this study, it would be beneficial to conduct a predictive validity study using a newly hired workforce. Professionalism could be assessed during the onboarding process and compared to an assessment of the individual's professionalism provided by their supervisor to examine inter-rater reliability, later self-reports of professionalism to assess reliability over time, or performance data to examine the relationship between performance and professionalism. If professionalism can be shown to be a relatively stable construct regardless of who is assessing it or when it is assessed, and it can be linked to other job outcomes and personality traits, it could prove invaluable in the selection process.

It is important to note at this time that although professionalism has been shown to have a positive link with several organizational outcomes, there is no guarantee that professionalism will lead to these outcomes. These relationships are based on correlations, which do not prove causation. Instead, professionalism should only be used to assess the likelihood that an individual will exhibit such outcomes at some point in the future. Even without a strong causal relationship, professionalism could be an extremely valuable tool for organizations.

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## **Appendix A: Proposed Model**

Moral Perspective – Promoting and adhering to ideals that conform to standards of “what is right.”

- Diversity values<sup>6</sup> – Valuing individual differences, such as culture, age, gender, and/or disabilities.
- Ideals<sup>1,3,6,7,8,9,10,11</sup> – Demonstrating commitment to ethical and occupational standards.
- Integrity<sup>1,2,6,8,11</sup> – Being straightforward, truthful, sincere, and fair.

Relational Conduct – Showing interest in the welfare of and interacting cooperatively with others.

- Altruism<sup>1,2,6,8,10</sup> – Demonstrating empathy for others and appropriately placing concern for others above one’s own interests.
- Collaboration/Teamwork<sup>7,8,11</sup> – Showing strong and consistent support of and cooperation with colleagues.
- Communication<sup>7,8,10,11</sup> – Engaging in active listening and appropriate responses.
- Compassion<sup>2,6,7</sup> – Demonstrating sympathy and understanding of others’ experiences.
- Respect<sup>1,6,7,8,11</sup> – Remaining courteous toward and treating others with dignity.
- Support of Diversity<sup>6</sup> – Demonstrating sensitivity regarding individual differences, such as culture, age, gender, and/or disabilities.

Self-Regulation – Maintaining appropriate behavior and presentation of oneself.

- Acceptance and Use of Criticism<sup>2,6,11</sup> – Appropriately accepting and using criticism to improve one's performance.
- Appearance<sup>1,6</sup> – Consistently conveying a professional appearance through one's clothing, grooming, and hygiene.
- Autonomy<sup>1,3,4,5,9</sup> – Perceives oneself as having the right to make decisions about one's work.
- Initiative<sup>6</sup> – Regularly taking on work and/or responsibilities without being prompted.
- Personal Accountability<sup>1,2,4,6,7,8,10,11</sup> – Accepting responsibility for one's own behaviors and decisions.
- Time Management<sup>6,8,11</sup> – Routinely being punctual and making good use of time.

Professional Identity – Showing interest in being a part of and contributing to the profession.

- Association<sup>3,5,9</sup> – Finding value in identifying with the profession and fellow professionals.
- Commitment<sup>2,3,4,5,9</sup> – Feeling a duty or obligation to one's work and/or the profession.
- Knowledge/Expertise<sup>1,4,6,8,9,10,11</sup> – Staying up-to-date on key facts and/or behaviors that would allow one to do his/her job well.

- Professional Pride<sup>5</sup> – Perceives one’s profession as being important and of value to others.

References:

<sup>1</sup>Akhtar-Danesh et al. (2013); <sup>2</sup>American Physical Therapy Association, 2012; <sup>3</sup>Bartol (1979); <sup>4</sup>Baumann & Kolotylo (2009); <sup>5</sup>Hall (1968); <sup>6</sup>Hershberger et al. (2010); <sup>7</sup>Interprofessional Professionalism Collaboration; <sup>8</sup>Kearney (2005); <sup>9</sup>Kerr et al. (1977); <sup>10</sup>Stern & Arnold (2005); <sup>11</sup>Van de Camp et al. (2006)

**Appendix B:  
Eligibility Survey**

Please check one response to each question

Are you 18 years of age or older?	Yes	No
Do you live in the United States?	Yes	No
Is English your first language?	Yes	No
Do you work at least 20 hours per week?	Yes	No

**Appendix C:  
Demographics Survey**

**Age:** \_\_\_\_\_

**Sex:** (please select one response)    Male    Female

**Race:** (please select all that apply)

Black/African American

Native American

Hispanic/Latino

Asian American

White/Caucasian

Hawaiian/Pacific Islander

Other (please specify): \_\_\_\_\_

**Highest level of education:** (please select one response)

- a. Some high school (no diploma)
- b. High school diploma or GED
- c. Trade/technical/vocational training
- d. Some college (no diploma)
- e. Some graduate (no diploma)
- f. Associates degree
- g. Bachelors degree
- h. Masters degree
- i. Professional degree
- j. Doctoral degree
- k. Other (please specify): \_\_\_\_\_

**Industry in which you work:** (please select one response)

- a. Agriculture or Mining
- b. Construction
- c. Manufacturing
- d. Transportation
- e. Communications
- f. Electric, Gas, and Sanitary Services
- g. Wholesale Trade or Sales
- h. Retail Trade or Sales
- i. Hospitality
- j. Finance
- k. Insurance
- l. Real Estate
- m. Public Administration

- n. Health Care
- o. Education
- p. Other (please specify): \_\_\_\_\_

**How many hours do you work per week:** \_\_\_\_\_

**How many years of work experience do you have:** \_\_\_\_\_

## **Appendix D: Professionalism Measure**

### Instructions:

*Please indicate the degree to which you agree or disagree that each of the following statements describes you.*

### Rating Scale:

Responses are obtained on a 7-point Likert-type scale where 1 = *strongly disagree*, 2 = *mostly disagree*, 3 = *somewhat disagree*, 4 = *neither agree nor disagree*, 5 = *somewhat agree*, 6 = *mostly agree*, 7 = *strongly agree*.

At work...

### *Appearance*

1. I ensure I am dressed appropriately.
2. I ensure I am well groomed.
3. I maintain good hygiene.

### *Compassion*

4. I demonstrate sympathy regarding others' experiences.
5. I demonstrate understanding of others' experiences.

### *Respect*

6. I act courteously towards others.
7. I treat others with dignity.

### *Acceptance & use of criticism*

8. I accept criticism appropriately.
9. I use criticism to improve my performance.

### *Commitment*

10. I feel a duty or obligation to my job.
11. I feel a duty or obligation to my profession.

### *Communication*

12. I engage in active listening.
13. I appropriately respond to others.

### *Altruism*

14. I demonstrate empathy toward others.
15. I put the interests of others before my own.

### *Collaboration/teamwork*

16. I demonstrate strong support of colleagues.
17. I cooperate with my colleagues.

### *Initiative*

18. I take on work without being asked.
19. I take on responsibilities without being asked.

### *Time management*

20. I am punctual
21. I make good use of my time.

*Personal accountability*

- 22. I accept responsibility for my behavior.
- 23. I accept responsibility for my decisions.

*Association*

- 24. I value being part of my profession.
- 25. I find value in identifying with other professionals in my field.

*Professional pride*

- 26. I believe my profession is important to others.
- 27. I believe my profession provides value to others.

*Integrity*

- 28. I am straightforward.
- 29. I am truthful.
- 30. I am sincere.
- 31. I am fair.

*Ideals*

- 32. I demonstrate commitment to ethical standards.
- 33. I demonstrate commitment to occupational standards.

*Diversity values*

- 34. I value individual differences related to culture.
- 35. I value individual differences related to age.
- 36. I value individual differences related to gender.
- 37. I value individual differences related to disabilities.

*Support of diversity*

- 38. I treat individuals the same regardless of their culture.
- 39. I treat individuals the same regardless of their age.
- 40. I treat individuals the same regardless of their gender.
- 41. I treat individuals the same regardless of their disability/disabilities.

*Knowledge/expertise*

- 42. I stay up to date on key facts related to my job.
- 43. I stay up to date on key behaviors that allow me to do my job.

*Autonomy*

- 44. I should have the right to make decisions about my work.

**Appendix E:  
Modified Alternate Professionalism Measure**

**ProDOC developed by Hershberger, Zryd, Rodes, & Stolfi (2010)**

Instructions:

*Please indicate the degree to which you agree or disagree that each of the following statements describes you.*

Rating Scale:

Responses are obtained on a 7-point Likert-type scale where 1 = *strongly disagree*, 2 = *mostly disagree*, 3 = *somewhat disagree*, 4 = *neither agree nor disagree*, 5 = *somewhat agree*, 6 = *mostly agree*, 7 = *strongly agree*.

1. I readily assume responsibility for decisions/choices/errors.
2. I place concern and advocacy for the welfare of others ahead of my own self-interest.
3. My clothing, grooming, and hygiene consistently convey a professional appearance.
4. I am dedicated to continued professional education and development.
5. I clearly and consistently demonstrate empathic understanding of individuals' experiences.
6. I demonstrate solid judgment regarding how and where sensitive information is discussed/revealed.
7. I clearly and consistently demonstrate sensitivity to individuals' culture, age, gender, and disabilities.
8. I clearly and consistently demonstrate commitment to ethical and professional standards.
9. I regularly initiate work appropriate to my level of training/responsibility.
10. I am straightforward, truthful, and sincere.
11. I consistently show respect for others.
12. I consistently fulfill assigned duties/responsibilities.
13. I appropriately accept criticism and use criticism to improve my performance.
14. I provide strong and consistent support of and cooperation with my colleagues in work and other activities.
15. I am routinely punctual and make excellent choices about the use of my time.

## **Appendix F: Impression Management Measure**

### **Blasberg, Rogers, and Paulhus (2013)**

#### Instructions:

*Please indicate the degree to which you agree or disagree with the following statements.*

#### Rating Scale:

Responses are obtained on a 7-point Likert-type scale where 1 = *strongly disagree*, 2 = *mostly disagree*, 3 = *somewhat disagree*, 4 = *neither agree nor disagree*, 5 = *somewhat agree*, 6 = *mostly agree*, 7 = *strongly agree*.

#### Agentic Management

1. My decisions are sometimes unwise. (R)
2. I have met people smarter than myself. (R)
3. I have mastered every challenge put before me in life.
4. You can't win at everything. (R)
5. My personality has a few problems. (R)
6. I am always brave in threatening situations.
7. Some people call me a genius.
8. My leadership of the group guarantees the group's success.
9. I sometimes need other people's help to get things done. (R)
10. I'm usually the one to come up with the big ideas.

#### Communal Management

11. I have done things that I don't tell other people about. (R)
12. I don't gossip about other people's business.
13. There have been occasions when I have taken advantage of someone. (R)
14. I have said something bad about a friend behind their back. (R)
15. I sometimes tell lies if I have to. (R)
16. I never swear.
17. I never cover up my mistakes.
18. When I hear people talking privately, I avoid listening.
19. I have never dropped litter on the street.
20. I often drive faster than the speed limit. (R)

*Note.* Reverse coded items are denoted with an (R).

## **Appendix G: Job Satisfaction Measure**

### **Minnesota Satisfaction Questionnaire Short Form by Weiss, Dawis, England, and Lofquist (1967)**

**Instructions:**

*On the following pages, you will find statements about your present job. Read each statement carefully; decide how satisfied you are about the aspect of your current job described by the statement. Then select the response that corresponds to your level of satisfaction with that aspect of your job.*

**Rating Scale:**

Responses are obtained on a 7-point Likert-type scale where 1 = *completely dissatisfied with this aspect of my job*, 2 = *mostly dissatisfied with this aspect of my job*, 3 = *somewhat dissatisfied with this aspect of my job*, 4 = *can't decide if I am satisfied or not with this aspect of my job*, 5 = *somewhat satisfied with this aspect of my job*, 6 = *mostly satisfied with this aspect of my job*, 7 = *completely satisfied with this aspect of my job*.

1. The chance to work alone on the job.
2. The chance to do different things from time to time.
3. The chance to be "somebody" in the community.
4. The way my boss handles their employees.
5. The competence of my supervisor in making decisions.
6. Being able to do things that don't go against my conscience.
7. The way my job provides for steady employment.
8. The chance to do things for other people.
9. The chance to tell people what to do.
10. The chance to do something that makes use of my abilities.
11. The way the company policies are put into place.
12. The pay and the amount of work that I do.
13. The chance for advancement on this job.
14. The freedom to use my own judgment.
15. The chance to try my own methods of doing the job.
16. The working conditions.
17. The way my co-workers get along with each other.
18. The praise I get for doing a good job.
19. The feeling of accomplishment I get from the job.
20. Being able to keep busy all the time.

**Appendix H:  
Affective Commitment Measure**

**Jaros, Jermier, Koehler, and Sincich (1993)**

Instructions:

*Most people have specific feelings about their employing organization. When you think of your employing organization, what feelings do you experience? Please choose the number which best represents your feelings.*

Example:

Cold    1        2        3        4        5        6        7        Warm

Anchor pairs:

Hate – Love  
Affection – Contempt (R)  
Detachment – Belonging  
Loyalty – Disloyalty (R)  
Boredom – Excitement  
Sadness – Happiness  
Disgust – Fondness  
Comfort – Discomfort (R)  
Lifelessness – Spiritedness  
Anger – Peace  
Ecstasy – Agony (R)  
Pleasure – Pain (R)  
Despair – Hope

Items denoted with (R) are reverse scored.

**Appendix I:  
Intrinsic Work Motivation Scale**

**Kuvaas (2006)**

**Instructions:**

*Please indicate the degree to which you agree or disagree with the following statements.*

**Rating Scale:**

Responses are obtained on a 7-point Likert-type scale where 1 = *strongly disagree*, 2 = *mostly disagree*, 3 = *somewhat disagree*, 4 = *neither agree nor disagree*, 5 = *somewhat agree*, 6 = *mostly agree*, 7 = *strongly agree*.

1. The tasks that I do at work are enjoyable.
2. I really think that my job is meaningful.
3. The tasks that I do at work are themselves an important driving force to me.
4. My job is so interesting that it is a motivation in itself.

**Appendix J:  
Measure of Counterproductive Work Behaviors**

**Interpersonal and Organizational Deviance Scale by Bennet and Robinson (2000)**

Instructions:

*Please indicate the extent to which you have engaged in the following behaviors in the previous year.*

Rating Scale:

Responses are obtained on a 7-point Likert-type scale where 1 = *never*, 2 = *once a year*, 3 = *twice a year*, 4 = *several times a year*, 5 = *monthly*, 6 = *weekly*, 7 = *daily*.

In the past year I have...

Interpersonal Deviance

1. Made fun of someone at work.
2. Said something hurtful to someone at work.
3. Made an ethnic, religious, or racial remark at work.
4. Cursed at someone at work.
5. Played a mean prank on someone at work.
6. Acted rudely toward someone at work.
7. Publicly embarrassed someone at work.

Organizational Deviance

8. Taken property from work without permission.
9. Spent too much time fantasizing or daydreaming instead of working.
10. Falsified a receipt to get reimbursed for more money than you spent on business expenses.
11. Taken an additional or longer break than is acceptable at your workplace.
12. Come in late to work without permission.
13. Littered your work environment.
14. Neglected to follow your boss's instructions.
15. Intentionally worked slower than you could have worked.
16. Discussed confidential company information with an unauthorized person.
17. Used an illegal drug or consumed alcohol on the job.
18. Put little effort into your work.
19. Dragged out work in order to get overtime.

**Table 1***Summary of Factor Loadings for the Professionalism Measure*

Item	Factor loadings				
	1	2	3	4	5
23. I accept responsibility for my decisions	.753	.028	.052	-.086	-.108
3. I maintain good hygiene	.710	.087	-.049	-.049	-.055
31. I am fair	.697	-.088	.029	.114	-.211
2. I ensure I am well groomed	.680	.027	-.058	-.091	.082
7. I treat others with dignity	.680	.015	-.204	.001	-.050
22. I accept responsibility for my behavior	.665	.015	-.019	-.061	-.148
32. I demonstrate commitment to ethical standards	.662	-.126	.081	.084	-.258
6. I act courteously towards others	.628	-.004	-.308	.054	-.025
1. I ensure I am dressed appropriately	.615	.033	-.088	-.016	.081
29. I am truthful	.612	-.108	.045	-.017	-.066
28. I am straightforward	.595	.049	.042	-.131	.023
20. I am punctual	.560	-.123	.043	.003	-.034
30. I am sincere	.546	-.107	-.034	-.088	-.094
42. I stay up to date on key facts related to my job	.445	-.196	.044	-.237	-.062
17. I cooperate with my colleagues	.429	-.115	-.261	.048	-.210
12. I engage in active listening	.416	-.007	-.233	-.231	-.083
18. I take on work without being asked	-.065	-.884	-.187	-.034	.057
19. I take on responsibilities without being asked	-.061	-.789	-.074	-.155	-.051
4. I demonstrate sympathy regarding others' experiences	.067	-.037	-.818	.008	-.080
5. I demonstrate understanding of others' experiences	.130	-.093	-.787	.22	-.009
14. I demonstrate empathy toward others	.021	-.078	-.730	-.014	-.112
16. I demonstrate strong support of colleagues	.194	-.159	-.408	-.170	-.108

*Note.* Factor 1 = Personal Standards; Factor 2 = Personal Initiative; Factor 3 = Compassion; Factor 4 = Professional Identity; Factor 5 = Diversity Orientation. Shaded cells indicate which factor the item loaded on.

**Table 1***Summary of Factor Loadings for the Professionalism Measure (continued)*

Items	Factor Loadings				
	1	2	3	4	5
25. I find value in identifying with other professionals in my field	-.111	-.084	.000	-.861	-.028
24. I value being part of my profession	.050	-.020	-.005	-.848	.015
26. I believe my profession is important to others	-.018	.052	-.074	-.725	-.112
27. I believe my profession provides value to others	.101	.018	.027	-.670	-.085
11. I feel a duty or obligation to my profession	.130	-.045	.051	-.650	.011
38. I treat individuals the same regardless of their culture	-.063	-.033	.037	.012	-.839
37. I value individual differences related to disabilities	-.063	.079	-.097	-.106	-.791
40. I treat individuals the same regardless of their gender	.114	-.120	.098	.054	-.751
39. I treat individuals the same regardless of their age	.125	-.041	.099	.030	-.740
36. I value individual differences related to gender	-.006	.096	-.088	-.128	-.737
35. I value individual differences related to age	.027	.021	-.160	-.081	-.688
34. I value individual differences related to culture	.018	.022	-.158	-.061	-.679
41. I treat individuals the same regardless of their disability/disabilities	.048	-.043	-.084	.011	-.659
8. I accept criticism appropriately	.319	-.116	-.115	-.129	-.076
9. I use criticism to improve my performance	.135	-.158	-.063	-.180	-.061
10. I feel a duty or obligation to my job	.207	-.207	-.136	-.361	.001
13. I respond appropriately to others	.461	-.039	-.309	-.054	-.103
15. I put the interests of others before my own	-.100	-.146	-.395	-.222	-.173
21. I make good use of my time	.333	-.184	-.012	-.261	-.031
33. I demonstrate commitment to occupational standards	.389	-.089	.057	-.095	-.416
43. I stay up to date on key behaviors that allow me to do my job	.378	-.264	.043	-.230	-.044
44. I should have the right to make decisions about my work	.291	-.288	.062	.065	-.088

*Note.* Factor 1 = Personal Standards; Factor 2 = Personal Initiative; Factor 3 = Compassion; Factor 4 = Professional Identity; Factor 5 = Diversity Orientation. Shaded cells indicate which factor the item loaded on.

\*  $p < .01$

**Table 2***Means, Standard Deviations, and Intercorrelations Across Study Variables*

Construct	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Personal Standards	6.34	0.66	(.95)											
2. Personal Initiative	5.97	1.16	.51*	(.91)										
3. Compassion	5.99	0.91	.64*	.52*	(.89)									
4. Professional Identity	5.89	1.00	.58*	.47*	.50*	(.89)								
5. Diversity Orientation	6.27	0.83	.70*	.44*	.61*	.53*	(.93)							
6. Professionalism Composite	6.20	0.67	.92*	.63*	.77*	.75*	.85*	(.97)						
7. ProDOC	6.17	0.68	.88*	.58*	.73*	.64*	.74*	.91*	(.92)					
8. Impression Management	3.81	0.79	.20*	.14*	.24*	.24*	.14*	.23*	.26*	(.80)				
9. Job Satisfaction	5.25	1.05	.39*	.32*	.31*	.43*	.33*	.44*	.42*	.22*	(.80)			
10. Affective Commitment	4.86	1.29	.28*	.30*	.31*	.41*	.26*	.37*	.33*	.23*	.69*	(.93)		
11. Intrinsic Work Motivation	5.05	1.50	.29*	.31*	.31*	.58*	.28*	.41*	.37*	.14*	.63*	.67*	(.92)	
12. CWB	1.89	0.87	-.56*	-.31*	-.41*	-.37*	-.43*	-.55*	-.56*	.18*	-.37*	-.31*	-.29*	(.88)

*Note.* Scale reliability coefficients are presented in parentheses along the diagonal.\* $p < .01$

**Table 3***Hierarchical Regression Analysis Predicting Job Satisfaction*

Step and Predictor Variable	<i>Adjusted R</i> <sup>2</sup>	$\Delta R^2$	$\beta$
Step 1	.178*	.178*	
ProDOC			.424*
Step 2	.175	.003	
Compassion			.009
Personal Standards			.059
Step 3	.213*	.038*	
Personal Initiative			.077
Professional Identity			.248*
Diversity Orientation			-.001

\* $p < .01$

**Table 4***Hierarchical Regression Analysis Predicting Affective Commitment*

Step and Predictor Variable	<i>Adjusted R</i> <sup>2</sup>	$\Delta R^2$	$\beta$
Step 1	.108*	.108*	
ProDOC			.332*
Step 2	.170*	.062*	
Professional Identity			.330*
Step 3	.178	.008	
Personal Standards			-.080
Personal Initiative			.091
Compassion			.110
Diversity Orientation			-.014

\* $p < .01$

**Table 5***Hierarchical Regression Analysis Predicting Intrinsic Work Motivation*

Step and Predictor Variable	<i>Adjusted R</i> <sup>2</sup>	$\Delta R^2$	$\beta$
Step 1	.134*	.134*	
ProDOC			.369*
Step 2	.148*	.014*	
Personal Initiative			.141*
Personal Standards			-.136
Step 3	.338*	.190*	
Compassion			.029
Professional Identity			.583*
Diversity Orientation			-.060

\* $p < .01$

**Table 6***Hierarchical Regression Analysis Predicting CWB*

Step and Predictor Variable	<i>Adjusted R<sup>2</sup></i>	$\Delta R^2$	$\beta$
Step 1	.316*	.316*	
ProDOC			-.563*
Step 2	.335*	.019*	
Personal Standards			-.305*
Step 3	.330	.005	
Personal Initiative			.022
Compassion			-.016
Professional Identity			-.008
Diversity Orientation			.014

\* $p < .01$