Measuring Emotional Labor Among Young Workers

Refinement of the Emotions at Work Scale

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RESEARCH ABSTRACT

This analysis examines the applicability of the emotional labor scale from the Emotions at Work Scale (EWS) through the assessment of its psychometric properties in a sample of young workers. Factor analysis and test–retest reliability were conducted on a 13-item scale measuring emotional labor. The EWS 13-item emotional labor scale was refined to 9 items. Two subscales were delineated: 5 items measured surface acting and 4 items measured deep acting, each with a mean inter-item correlation of 0.33. Cronbach's alpha was .96 for the 9-item scale, and .71 and .67 for the surface acting and deep acting subscales, respectively. Test–retest reliability was 0.64 for surface acting and 0.51 for deep acting during a mean interval of 3 months. Emotional labor can be quantitatively measured among young workers using the derived 9-item scale, although additional studies further evaluating its use should be conducted.

Employment during adolescence and early adulthood, particularly within the service industry, is common in the United States (Castillo, Davis, & Wegman, 1999). Approximately 50% of high school students are employed while enrolled in school, and 80% engage in part-time work at some point during their high school years. Additionally, estimates indicate that 40% of the nation's 16- to 17-year-old high school students held jobs within the past month, with 25% working 20 hours or more per week (Lerman, 2000). The number of young workers is increasing, primarily due to growing employment opportunities (i.e., growth of the service economy) and changing lifestyle expenses (e.g., family income assistance and discretionary purchases) (Barling & Kelloway, 1999; Fitzgerald & Laidlaw, 1995; Greenberger & Steinberg, 1986).

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Adolescents and young adults are typically employed in low-level, frontline, interactive service jobs. The current population survey, described in the U.S. Department of Labor's *Report on the Youth Labor Force* (2000), demonstrated that approximately 62% of adolescents 15 to 17 years old employed during school months between 1996 and 1998 worked in the retail trade, and an additional 25% worked in service industries. More specifically, 39% of these adolescents worked in service occupations (e.g., food preparation and service) and 27% worked in sales (e.g., cashiers). These percentages are projected to increase with the continual growth of the service and retail industries (U.S. Department of Labor, 2000). As a result, young workers disproportionately face the occupational challenges distinctly associated with service industry jobs. Young workers may regularly tolerate the actual and potential hazards of employment because they may not expect to stay in a job for a long period as a large supply of replaceable employee candidates or other job opportunities exist.

EMOTIONAL LABOR

Emotional labor is a concept that captures the demands associated with working in the service sector, typically characterized by direct interaction with clients

Applying Research to Practice

This refined 9-item emotional labor scale alerts occupational health nurses to the psychosocial hazards of service-oriented jobs. In addition, it reinforces the need to recognize emotional labor as a true work-related experience and occupational demand; is a psychometrically sound quantitative scale for measuring distinct forms of emotional labor (surface acting and deep acting) appropriate for use among samples of young workers; and encourages future investigation of emotional labor across a variety of study populations defined by occupational category or sociodemographics.

or customers. Emotional labor was originally described by Hochschild (1983) in *The Managed Heart* as "the management of feeling to create a publicly observable facial and bodily display" (p. 7). Jobs involving emotional labor were identified as requiring face-to-face or voice-to-voice contact with the public; the worker to produce an emotional state in another individual (i.e., client or customer); and the employer, through training and supervision, to exercise a degree of control over the emotional activities of employees (Hochschild, 1983). Emotional labor is performed through two methods: surface acting (pretending or regulating one's emotional expressions) and deep acting (conscious modification of one's emotions to express a desired emotion). Because the performance of emotional labor requires effort, it presents an occupational demand on workers.

Although emotional labor is not a new concept and numerous theorists and investigators have recognized Hochschild's construct in reports among a variety of occupations (Bolton, 2000; Bryman, 1999; Henderson, 2001; Leidner, 1993; Lively, 2002; Macdonald & Sirianni, 1996; Martin, 1999; Martschinke, 1996; O'Brien, 1994; Paules, 1991; Pierce, 1999; Rafaeli & Sutton, 1987; Staden, 1998; Steinberg & Figart, 1999; Sutton, 1991; Tolich, 1993), additional researchers have noted the psychosocial effects of emotional labor on workers (Abiala, 1999; Brotheridge & Grandey, 2002; Brotheridge & Lee, 2002; James, 1989; Smith & Erickson, 1997; Wharton, 1999; Wharton & Erickson, 1995). Although such studies have examined the effects of emotional labor among specific types of jobs, no research studies have focused specifically on young workers.

Given the stage of psychosocial development and emotional vulnerability of young workers (Castillo et al., 1999) and their relatively limited work experience, emotional labor may be uniquely stressful to them. Because adolescents and young adults experience evolving degrees of social competence and emotional maturity, workplace stressors, encountered as a part of their psychosocial environment, can have a profound impact on critical transitions during this developmental period (U.S. Department of Health and Human Services, 1999). In general, young workers are thought to be at higher risk for work-related injury and illness because they commonly demonstrate immature judgment and risk assessment, pursue sensation-seeking behaviors, succumb to peer pressure, possess an incomplete self-image, experience pressure to excel, need to prove independence and maturity, desire to conform, and rebel against authority (National Institute for Occupational Safety and Health, 1997). Given the conclusions of studies of adult worker populations, the occupational demand of emotional labor may also significantly impact young workers. The likelihood of young workers to be employed in frontline, interactive service work, in concert with their developmental capacities, contributes to the potential negative risks associated with emotional labor. Despite the current appreciation of emotional labor and the reception of the young work force in today's service economy, the investigation of emotional labor among young workers specifically has received no empiric attention from researchers.

QUANTITATIVE MEASUREMENT OF EMOTIONAL LABOR

Formal exploration of emotional labor has typically used qualitative data (Bolton, 2000; Callaghan & Thompson, 2002; Harris, 2002; Hochschild, 1983; James, 1989; Lively, 2002; Paules, 1991; Scheid, 1999; Shuler & Sypher, 2000; Staden, 1998; Sutton, 1991; Tolich, 1993), while quantitative measurement and analysis has been limited. Realizing the expansion of knowledge and research efforts about emotional labor, researchers have identified the need for quantitative measurement alternatives (Erickson & Wharton, 1997; Wharton, 1993). As a result, a variety of efforts have been made to quantitatively measure emotional labor, although, notably, none have been specifically tested among young worker populations.

In a study by Wharton (1993), a dichotomous variable based on Hochschild's original classification scheme was used to categorize occupations that involve emotional labor versus those that do not. Wharton reported that 64% of the sample held jobs involving emotional labor according to the Hochschild classification. Two subjective items posed to study participants were summarized by Wharton as the "estimate [of] how much of their time at work was spent engaged with other people" and "[for] those who worked with people to describe the nature of these relations (e.g., respondent works with customers or clients, supervises other employees, etc.)." From the responses, three categorical variables were created: "emotional labor," for those reporting that almost all of their time was spent with clients or customers; "some emotional labor," for those spending some time with clients or customers or almost all of their time engaged with individuals (but not primarily clients or customers); and "no emotional labor," for those having jobs not requiring interaction with individuals in any way.

An emotional labor index was created by Adelmann

(1995) in a study of predominantly female (85.5%) table servers (n = 90). The index was based on responses to two sets of phrases to determine the degree of job performance related to "having to produce an emotional state in another person" and "expressive behavior and feeling as controlled by the job." Although the emotional labor index developed by Adelmann was a notable step toward creating a quantitative measure, it provided a collective score that did not separate the components of surface acting and deep acting or other aspects of emotional labor (i.e., amount of time or intensity).

Pugliesi and Shook (1997), in a study of various public university employees (i.e., faculty and administrative staff; n = 1,114), employed two sets of quantitative measures for emotional labor that encompassed both clients or customers and coworkers. The first set assessed how participants described their jobs using 3 items and the second set assessed "amount of time spent" on certain tasks and focused primarily on coworker relations using 4 items. Although the authors state that these items were generated from focus groups previously held with occupational groups representative of those comprising the actual study sample, no specific detail of the process of development or psychometric evaluation was reported. They indicated that the items and investigation primarily centered on emotional labor in relation to coworkers rather than clients or customers, acknowledging that previous research has concentrated on the latter.

Kruml and Geddes (2000b) systematically developed an instrument to quantitatively measure aspects of emotional labor. Sources for item development included interviews completed and presented by Hochschild and interviews conducted with service workers. After a series of reviews, revision, and factor analyses, a 2-item "emotive dissonance" scale and a 4-item "emotive effort" scale were ultimately derived with responses ranging from 1 ("Never") to 5 ("Always"). Analysis was undertaken using data from an organizationally, occupationally, and geographically diverse sample (n = 427) of mostly female (70%), white (94%) service workers whose ages ranged from 25 to 34 years. Cronbach's alpha for this sample was .68 for emotive dissonance and .66 for emotive effort (Kruml & Geddes, 2000a, 2000b). Kruml and Geddes clearly sought to depict emotional labor in relation to the customer or client and test their scales by collecting data from a working population representing a variety of demographics and occupational characteristics. More importantly, the authors recognized that each factor, emotive dissonance and emotive effort, effectively paralleled Hochschild's original surface acting and deep acting dimensions, respectively.

Another quantitative scale of emotional labor that distinctly measures surface acting and deep acting was offered by Brotheridge and Lee (2002) and Brotheridge and Grandey (2002). Development of these items was reported to have included review of the emotional labor literature focusing on emotion regulation concepts and subjective examination by emotion researchers. Factor analyses revealed a 3-item surface acting factor and a 3-item deep acting factor independent of each other (Brotheridge & Grandey, 2002). In a study of a sample of family members of undergraduate marketing students in Canada, Brotheridge and Lee (2002) reported a Cronbach's alpha of .89 for surface acting and .86 for deep acting. The sample (n = 236) included a heterogeneous group of occupations. The sample was approximately half female, with a mean age of 27 years and mean occupational experience of 6 years. In additional research (described as essentially the same sample), Brotheridge and Grandey (2002) reported a Cronbach's alpha of .74 for surface acting and .83 for deep acting, using the scales described above. Of note, the complete Brotheridge and Lee Emotional Labour Scale includes items designed to measure aspects of emotional labor in addition to the components of surface and deep acting (e.g., duration, intensity, and variety). Further, in another study that also used the Brotheridge and Lee surface acting and deep acting measures, Holman, Chissick, and Totterdell (2002) reported a Cronbach's alpha of .85 for surface acting and .90 for deep acting. This research was conducted with a sample of bank call center employees in the United Kingdom. The sample (n = 347) was mostly female (70.6%), with a mean age of 32 years and mean job tenure of 28 months. On review of the Brotheridge and Lee Emotional Labour Scale, additional assurance was provided that measuring the distinct dimensions of surface acting and deep acting is essential in researching emotional labor.

The objective of this analysis was to develop a quantitative emotional labor scale appropriate for use among young workers. This analysis examined the applicability of the emotional labor scale from the Emotions at Work Scale (EWS) (Spratt, 1996) by assessing its psychometric properties in a sample of adolescents and young adults. Refinement of the EWS emotional labor scale was undertaken to capture the key features of emotional labor—surface acting and deep acting. Additionally, the resulting emotional labor scale served as an instrument for subsequent study involving young workers.

METHODS

Participants

The study sample (n = 129) for this analysis was a subset of participants from Project Heart Four, a current longitudinal study of working adolescents and young adults in Baltimore. Participants in Project Heart Four were directly recruited from previous Project Heart investigations (i.e., Project Heart One, Project Heart Two, and Project Heart Three) (Ewart & Kolodner, 1991, 1992, 1993, 1994; Ewart & Suchday, 2002), which were independent studies that primarily examined cardiovascular disease risk among cohorts of magnate high school students. The sample was racially diverse (89 African American individuals, 38 white individuals, 1 Asian American individual, and 1 Hispanic individual), consisted of mostly female participants (69%), had a mean age of 22.7 years (range, 17 to 28 years), and represented an assortment of occupational classifications (e.g., sales, service, administrative support, professional and technical, laborers, and managers).

Table 1

Factors and Factor Loadings Identified Through Primary Factor Analysis of the Original 13 Emotional Labor Items

	Factor Loading
Factor one: surface acting*	
1. I act like nothing bothers me, even when a client makes me mad or upset.†	0.497
2. I have to act the way people think a person in my job should act.	0.634
3. I want my clients to think I'm always able to handle things.	0.542
4. I work hard to keep myself in a positive mood at work.	0.610
5. At work I have to seem concerned, even when I don't feel like it.	0.739
6. I want my clients to think I'm always calm.	0.719
7. A big part of my job is keeping other people happy.	0.707
8. Part of the training for this job requires learning how to deal with people.	0.617
Factor two: deep acting‡	
1. To give advice, I have to make sure I say it in a nice way.	0.631
2. I make an effort to be interested in my clients' concerns.	0.628
3. People judge me by how caring I am.	0.593
4. To make suggestions, I make sure I say it in a nice way.	0.859
5. When something goes wrong at work, I feel like I should try to make other people feel better.	0.537

**Mean inter-item correlation = 0.36; Cronbach's α = .81.*

†Item originally loaded by itself onto a third factor, but subsequently loaded onto factor one after forcing analysis into two factors.

‡Mean inter-item correlation = 0.34; Cronbach's α = .72.

Study Design and Procedures

Data Collection. The EWS was administered as part of the Project Heart Four investigation. The instrument was made available to Project Heart investigators at a time when no other emotional labor scales were formally published and the research literature was limited. Participants were asked to respond to all items of the self-administered EWS. Each questionnaire was checked for completeness, and follow-up telephone calls were made to obtain additional missing information. Consent was obtained (including parental consent in the case of minors) and confidentiality was assured on entry as a participant into the Project Heart Four study.

Measurement. Spratt (1996) and Curbow developed the EWS during their research about the emotional work experience of child care workers in Maryland. The EWS includes a subscale consisting of 13 items designed to specifically measure emotional labor. Each item is rated with a Likert-scale response ranging from a score of 1 ("Rarely or Never") to 5 ("Most of the Time"). Items were developed using theoretical information from literature available at the time of Spratt and Curbow's research and statewide focus groups of family day care providers (child care) in Maryland. The subscale originally consisted of 23 items and was pretested (along with the entire EWS) among nurses (n = 8) and secretaries and administrative assistants (n = 15)—occupations considered to involve emotional work. With this pretest, the Cronbach's alpha for the emotional labor subscale was reported to be .88. The emotional labor subscale was subsequently reduced to 13 items after inter-item correlation analysis was performed. The 13-item emotional labor scale was subsequently pilot tested among a random sample of female child care providers (n = 179) throughout Maryland, and the Cronbach's alpha was reported to be .81. In addition, mean inter-item correlation of the emotional labor subscale was calculated to be 0.24. Factor analysis on the 13-item emotional labor scale resulted in 4 distinct components ("acting," "effort," "judged," and "training"). Content validity was established by discussing scale items with researchers who study emotional labor and a convenience sample of female case managers for human immunodeficiency virus–positive women. Convergent validity, determined by examining the correlation between the emotional labor subscale and the related measures of role overload and job demands, was reported to be 0.23 (p < .01) and 0.30 (p < .001), respectively. These correlations indicated "moderate" convergent validity by showing significant correlations with two related measures.

Analysis. Preliminary factor analysis of sample data was performed with SPSS software (version 10.0; SPSS, Inc., Chicago, IL) using the varimax method. Factor analysis was first used with the entire 13-item emotional labor subscale to determine how question items in the scale clustered together to form a factor or several factors (e.g., the construct surface acting or deep

Table 2

Factors and Factor Loadings in the "Refined" Emotional Labor Scale

	Factor Loading
Factor one: surface acting*	
1. I act like nothing bothers me, even when a client makes me mad or upset.	0.522
2. I have to act the way people think a person in my job should act.	0.694
3. I want my clients to think I'm always able to handle things.	0.668
4. At work I have to seem concerned, even when I don't feel like it.	0.685
5. I want my clients to think I'm always calm.	0.799
Factor two: deep acting†	
1. To give advice, I have to make sure I say it in a nice way.	0.716
2. I make an effort to be interested in my clients' concerns.	0.684
3. I work hard to keep myself in a positive mood at work.	0.582
4. To make suggestions, I make sure I say it in a nice way.	0.827

**Mean inter-item correlation = 0.33; Cronbach's α = .71.*
†Mean inter-item correlation = 0.33; Cronbach's α = .67.

acting) (Norman & Streiner, 1999). After the results of this factor analysis were reviewed, the data were forced into two factors to strictly differentiate between the surface acting and deep acting components of emotional labor and to provide a sum score for each. Subsequent reliability and internal consistency analyses using Cronbach's alpha were undertaken for each of these factor analyses. Cronbach's alpha provided a measure of how well a subset of items from the 13-item scale measured a single one-dimensional construct, either surface acting or deep acting.

As a step in the process of scale refinement, results of the preliminary factor analyses and reliability and internal consistency analyses were discussed with researchers who were knowledgeable about the construct and related research and familiar with the EWS. After this review, recommendations based on theoretical considerations were offered regarding the arrangement of the specific emotional labor items into surface acting and deep acting factors (providing a sum score for each). Subsequent testing of psychometric properties, including mean inter-item correlation to assess the extent to which items within a factor were related and Cronbach's alpha, was performed on these recommended factors.

Pearson's product moment correlation coefficients (two-tailed) were computed for each of the surface acting, deep acting, and total emotional labor (surface acting plus deep acting) scores between the specific factors derived from the primary factor analysis and the subsequent secondary "refined" factors. The correlation coefficients quantified the relationship between the factors of interest. Additionally, scores for the secondary factors of surface acting and deep acting were correlated with scores for the originally developed Spratt (1996) and Curbow factors named "acting" and "effort" (considered to correspond with surface acting and deep acting), respectively, to serve as another test for the refined emotional labor subscale specifically used for this analysis.

Test–retest reliability to compare the degree to which participants responded similarly to scale items at two points in time was performed using the "refined" version of the emotional labor scale. Bivariate correlation analysis was used for data from a random sample of 31 Project Heart Four participants who had completed the emotional labor subscale at two points in time. Individual participants' total scores for items in each of the two identified emotional labor factors (surface acting and deep acting) were calculated at each test time. Pearson's correlations between the mean scores for each emotional labor factor at test and retest times were computed.

RESULTS

Emotional labor scale items and results of the primary factor analysis are provided in Table 1. Analysis using all 13 emotional labor items first resulted in 3 principal factors: factor one loading 7 items, factor two loading 5 items, and factor three loading only 1 item ("I act like nothing bothers me, even when a client makes me mad or upset."). Because of this 1-item factor, the statistical computer analysis was instructed to force all 13 items into 2 factors, designated as surface acting and deep acting based on qualitative review of item wording. This "forced" 2-factor analysis resulted in 8 items for surface acting (which now included the 1 item originally falling into a third factor) and 5 items for deep acting. Mean inter-item correlation for the surface acting and deep acting factors was 0.36 and 0.34, respectively. Internal consistency of these factors was measured using Cronbach's alpha and resulted in .81 for surface acting and .72 for deep acting.

Table 2 contains the "refined" emotional labor scale based on qualitative review by emotional labor researchers. Some scale items were rearranged into the other factor and

Table 3

Correlation Between Emotional Labor Scores From Primary Factor Analysis and Refined Factors

	Refined Factor		
	Surface Acting	*Deep Acting*	*Total Emotional Labor*
Primary factor			
Surface acting	0.94*		
Deep acting		0.88*	
Total emotional labor			0.96*

*$p < .01$ (two-tailed).

Table 4

Items Originally Identified by Spratt and Curbow for the Factors "Acting" and "Effort"

Acting

1. I want my clients to think I'm always calm.
2. At work I have to seem concerned, even when I don't feel like it.
3. I have to act the way people think a person in my job should act.
4. I want my clients to think I'm always able to handle things.
5. I act like nothing bothers me, even when a client makes me mad or upset.
6. I work hard to keep myself in a positive mood at work.
7. To make suggestions, I make sure I say it in a nice way.

Effort

1. To give advice, I have to make sure I say it in a nice way.
2. I make an effort to be interested in my clients' concerns.
3. A big part of my job is keeping other people happy.
4. When something goes wrong at work, I feel like I should try to make other people feel better.

Data from Spratt (1996) and Curbow.

others were eliminated, resulting in 9 total items. This "refined" version lists 5 items for the surface acting factor and 4 items for the deep acting factor. Mean inter-item correlation was 0.33 for each of the two factors, with a Cronbach's alpha of .71 for surface acting and .67 for deep acting.

Table 3 lists zero-order correlations between scores of corresponding factors from the primary and secondary factor analyses. Scores from the 8-item surface acting factor obtained in the primary factor analysis were correlated with scores from the "refined" 5-item surface acting factor. Between surface acting factors, a correlation of 0.94 was noted ($p < .01$). Between deep acting factors, a correlation of 0.88 was noted ($p < .01$). The correlation between the total original 13-item scale and the total "refined" 9-item scale was highest at 0.96 ($p < .01$).

In consideration of the factors "acting" and "effort" originally described by Spratt (1996) and Curbow, the specific items assigned to each are listed in Table 4. Table 5 lists the correlations with the corresponding "refined" surface acting and deep acting factors. As with the correlations reported above, statistically significant correlations were observed. Between acting and surface acting, a correlation of 0.92 ($p < .01$) was noted. Between effort and deep acting, a correlation of 0.88 was noted ($p < .01$).

Results of the test–retest reliability analysis using the "refined" versions of the surface acting and deep acting factors are listed in Table 6. The mean time between the test and retest dates was 90.5 days ($SD = 61.7$ days; range = 20 to 261 days). Zero-order correlations between total scores for each factor at test and retest times were calculated for the 31 eligible study participants. Observed correlation was 0.64 ($p < .01$) for surface acting and 0.51 ($p < .01$) for deep acting.

DISCUSSION

Psychometric Quality of the EWS Emotional Labor Scale

The process of refinement and psychometric evaluation undertaken in this analysis has transformed the EWS emotional labor subscale (originally developed to measure emotional labor among child care workers) into a survey instrument that appropriately captures and distinguishes the components of surface acting and deep acting for a sample of young workers. The refined scale remains consistent with Hochschild's original conceptualization of how emotional labor is performed by workers in service-oriented occupations. The refined scale items were reviewed by emotional labor researchers and evaluated against the formal conceptual model of emotional labor proposed by Grandey (2000) that distinctly separates the performances of surface acting and deep acting. According to Grandey (2000), these variables can operate as mediators between independent variables—antecedent situational cues, individual characteristics, and work factors—and dependent variables—consequences for either the individual worker or the organization. On the basis of these findings, the refined emotional labor scale is a quantitative measure that can be specifically used for subsequent formal research among working adolescents and young adults in the service sector.

The psychometric properties observed for the refined scale contribute to confidence in its use. With application of criteria presented by Robinson, Shaver, and Wrightsman

(1991) to assess and evaluate the psychometric utility of a scale instrument, all mean inter-item correlations (range = 0.33 to 0.36), including those observed using factors from the initial primary factor analysis and the refined version of factors, were "exemplary" (mean inter-item correlation, 0.30 or better). Cronbach's alpha, measuring internal consistency of the refined version of each factor, was "extensive" (.71; range = .70 to .79) for surface acting and "moderate" (.67; range = .60 to .69) for deep acting. Additionally, test–retest reliability for the refined version of each factor (0.64 and 0.51 for surface acting and deep acting, respectively) was "extensive" (0.40 or better), based on a mean interval of 3 months between test times.

On comparison of the factors identified for the refined scale with those obtained through the primary factor analysis, correlations were high and statistically significant across the individual factors of surface acting and deep acting and the total combined emotional labor score (the original 13-item scale score vs. the 9-item refined scale score). The correlation coefficients observed were 0.94, 0.88, and 0.96 ($p < .01$) between scores for the surface acting factors, scores for the deep acting factors, and the total combined scores, respectively. Additional comparisons between the factors of the refined emotional labor scale and the corresponding factors identified by Spratt (1996) and Curbow during its original development revealed supplementary consistency. Given that the correlation coefficients between the refined surface acting factor and the (Spratt–Curbow) "acting" factor ($r = 0.92$; $p < .01$) and the refined deep acting factor and the (Spratt–Curbow) "effort" factor ($r = 0.80$; $p < .01$) were high, the rearrangement of scale items was appropriate and in relative agreement with the comparable original scale factors. Of the 5 items comprising the refined surface acting factor, all were included in the 7-item "acting" factor. Of the 4 items comprising the refined deep acting factor, 2 were included in the 4-item "effort" factor. This series of comparisons notably supplies additional confidence in the soundness of the refined emotional labor scale evolving from this analysis.

Although the use of this refined version of the emotional labor scale as a quantitative measure is evident, some contrast against those used in other studies of emotional labor is warranted. The specific measures developed by Kruml and Geddes (2000b) and Brotheridge and Lee (2002) serve as the most suitable comparisons. These three scales capture and distinguish the two-dimensional view of emotional labor as characterized by Hochschild. Additionally, development among the three scales specifically considered the service workers' perspective in relation to customers or clients rather than coworkers or family members or general feelings of emotion management. The comparison of levels of internal reliability (Cronbach's alpha) also reveals that the refined scale possesses comparable psychometric properties.

On review of these emotional labor scales used by other researchers, the refined scale is sufficiently equivalent and appropriately dependable in measuring emotional labor. A scale that serves to measure the separate dimensions of surface acting and deep acting, as this one capably does, falls in line with the most recently developed scales. Whereas all other research efforts described have encompassed a variety of study samples and objectives, this analysis purposefully focused on young workers. As such, this analysis provides support for the use of the scale in studies specifically involving the emotional

Table 5

Correlation Coefficients for Emotional Labor Scores From "Refined" Factors and the Corresponding Spratt–Curbow Factors

	Refined Factor	
Spratt–Curbow Factor	***Surface Acting***	***Deep Acting***
Acting	0.92*	
Effort		0.88*

*p < .01 (two-tailed).
Data from Spratt (1996) and Curbow.

Table 6

Results of Test–Retest Reliability Analysis Using the "Refined" Version of Surface Acting and Deep Acting Factors*

	Time One		*Time Two*		
	Mean Score	**SD**	***Mean Score***	**SD**	**r**
Factor one: surface acting	17.58	4.36	18.39	2.97	0.64†
Factor two: deep acting	15.71	3.09	15.19	2.57	0.51†

**The mean, SD, and range of days between test times were 90.5, 61.7, and 20 to 261, respectively.*
†p < .01 (two-tailed).

labor experiences of adolescents and young adults. This assertion, however, does not necessarily restrict the potential use of the scale for studies among other types of samples (e.g., "older" service workers or workers identified by occupation). Future studies with other samples could use the scale, but would need to evaluate its psychometric properties within those samples.

Research on emotional labor can also be particularly helpful for occupational health nurses practicing in workplaces that employ young workers. Performing emotional labor presents a challenge for youth that can factor into adverse health-related outcomes. Managing with this stressful psychosocial workplace demand may lead to psychological consequences, absenteeism, and burnout among workers. For youth, this may have profound implications for overall physical health and well-being due to their development as well as future work-related health conditions. Having an understanding of emotional labor and its impact on workers, occupational health nurses can more effectively address issues arising from the psychosocial job demands that current service-oriented employment requires. Interventions limiting the deleterious effects of emotional labor can be developed and integrated into health and safety or health promotion programs. Also, occupational health nurses must be ready to meet the needs of workers to cope with the stresses associated with emotional labor and facilitate establishment of a socially supportive work environment.

Limitations

The limitations of this study must be acknowledged. First, the exact scale items were not originally constructed nor designed specifically for research among young workers. The intent of this specific analysis was to provide support for the applicability and use of the refined emotional labor scale for subsequent research and analyses of Project Heart data. Consequently, generalizability of the findings to study populations other than young workers is limited. Second, a significant decision-making step in the process of subjective review of the scale was influenced by the suitability of the factors studied and their correspondence with Grandey's model of emotional labor. Although this approach may impose some theoretical and contextual boundaries on the refined emotional labor scale, it also produces measures that fit within a recently formalized and well-informed framework of emotional labor. Further psychometric evaluation using a larger sample may yield higher levels of internal consistency.

CONCLUSIONS AND IMPLICATIONS

The results of this analysis support the functionality and use of this emotional labor scale. The instrument's key features include its distinct quantitative measurement of the surface acting and deep acting components of emotional labor; its appropriateness for use in research among young workers employed in service-oriented positions; its practicality as a short, self-administered survey; and its suitability in consideration of Grandey's conceptual model of emotional labor. Additionally, compared with earlier measures of emotional labor, this scale appears to possess a degree of soundness based on its psychometric properties and its adherence to Hochschild's original ideas. This scale will contribute to further research of young workers—an important, relatively unrecognized segment of the service worker population. Use of the scale will also contribute to the knowledge of the effects of emotional labor on worker health and well-being.

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