



An Exploratory Study of a Brief Measure of Job Satisfaction in Pennsylvania School Psychologists

Laura M. Crothers¹ · Taylor Steeves¹ · Jered B. Kolbert¹ · James B. Schreiber¹ · Ara J. Schmitt¹ · Brianna Drischler¹ · Kelly Paulson¹ · Jessica Cowley¹ · Amelia Klass¹ · Athena Vafiadis¹ · Kayla Perfetto¹

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Abstract

In this exploratory study, we adapted items from a previously developed measure of job satisfaction, the Measure of Job Satisfaction (MJS), an instrument first developed for use with community nurses in the UK, to create a brief, 15-item instrument (Job Satisfaction—Brief) applicable to practitioners of school psychology from Pennsylvania ($N = 94$). In order to examine the underlying factor structures of the items adapted from the Measure of Job Satisfaction (MJS) instrument, exploratory factor analysis (EFA) was applied in the JAMOVI Version 2.3.19.0 with maximum likelihood estimation to be implemented for the ordered categorical scale. Two factors were extracted from the data: Factor One: Satisfaction with Intrapersonal Development and Clinical Accomplishment and Factor Two: Satisfaction with Advancement, Financial Compensation, and Rank. The uses for the measure and recommended future directions are discussed.

Keywords Exploratory factor analysis · Job satisfaction · School psychologists

Introduction

Job satisfaction, the degree to which people like their jobs, is one of the reasons that individuals choose to remain working in their employment positions and settings (Spector, 1997). Job satisfaction represents a general attitude toward one's job, and an individual's positive emotional reaction to a particular job that results from the person's comparison of their actual outcomes with their desired or anticipated outcomes. It is an important topic to consider in psychology related to its relevance to the physical and mental well-being of employees. From an organizational standpoint, improving job satisfaction may also result in improvements in work performance (Katebi et al., 2022; Oshagbemi, 1999), or for the profession of school psychology, and service to children and their families. The purpose of this study is to examine the factor structure of a brief measure of job satisfaction for school psychologists. Our proposed measure of job satisfaction (Job Satisfaction—Brief; JS-B) of school psychologists is adapted from two factors from the Measurement of

Job Satisfaction (MJS; Traynor & Wade, 1993) instrument, which was designed to measure the morale of community nurses. The need for such a measure is in consideration of the last assessment uniquely created for measuring job satisfaction in school psychologists being developed more than several decades ago and is comprised of more than 100 items.

As employees in one of the social service professions, school psychologists are vulnerable to burnout, which is defined as a state of feeling mentally, physically, or emotionally exhausted in the context of one's employment (Mayo Clinic, 2021). Burnout can be caused by numerous issues, including a poor sense of control over one's job situation, unclear work expectations, a lack of support from colleagues, and poor workplace dynamics. Individuals experiencing burnout are vulnerable to mental health difficulties (Tomoyuki, 2014), increased job stress and perceptions of work-life conflict (Clark et al., 2014), or are at risk of leaving positions or the field of school psychology altogether because of concerns with the work conditions of their employment setting (Gabel Shemuely et al., 2015; Schilling & Randolph, 2017).

While school psychologists are largely satisfied with their jobs, many school psychologists report feelings of burnout related to dissatisfaction with salary, work demands, and

✉ Laura M. Crothers
crothersL@duq.edu

¹ Duquesne University, Pittsburgh, USA

strained relationships with coworkers. Two studies found that the majority of recent graduates and more seasoned school psychologists have reported at least moderate feelings of burnout (and in particular, emotional exhaustion) at some time during their careers with role overload, work resources, salary, insignificant recognition for work, and the setting of employment. Most reported these feelings within the first 3 to 4 years after beginning working as a school psychologist, feelings which have led to 63% of participants either leaving or thinking of leaving their current job or considering leaving the field of school psychology (Schilling & Randolph, 2017; Schilling et al., 2018).

Of note, employees who are more satisfied with their jobs are protected to some extent from burnout. In measuring job satisfaction, some research has been conducted regarding the recommended and empirically supported methodology. Oshagbemi (1999) engaged in a study comparing single-item to multiple-item measures of job satisfaction. Single-item measures reflect an overall perception of satisfaction, such as “Overall, are you satisfied or dissatisfied with your job?” Conversely, multiple-item measures typically require participants to rate various aspects of their job on a Likert-type scale from “very dissatisfied” to “very satisfied.” Oshagbemi (1999) concluded that single-item measures are more likely to overestimate employee satisfaction and underestimate the number of disaffected employees. Specifically, the benefits to multiple-item measures include greater detail in aspects of the respondents’ job and the ability to compare aspects of the same job. In assessing school psychologists’ job satisfaction from the early 1980s to the present, researchers have published studies reflecting measures (both single-item and multiple-item measures) created for the purpose of researching job satisfaction, use of the Minnesota Satisfaction Questionnaire (MSQ; Weiss et al., 1967), or the Job Satisfaction Survey (JSS; Reschly & Wilson, 1995).

Minnesota Satisfaction Questionnaire (Weiss et al., 1967)

The long form (100 items) of the MSQ is a measure of overall job satisfaction as well as a specific look at the components of job satisfaction in 20 subscales, including work ability, utilization, achievement, activity, advancement, authority, compensation, coworkers, creativity, independence, moral values, policies and procedures, recognition, responsibility security, social service, social status, supervision-human relations, supervision-technical, variety, and working conditions. After being revised to eliminate sexist language and increase relevance to employment in a school setting (Anderson et al., 1984), the original five-choice Likert scale was changed to a four-choice scale, omitting the neutral response category. In its revised version, the internal consistency reliability of the 20 subscales ranged from

0.74 to 0.94 (Anderson et al., 1984), while Cronbach’s alpha (α) for the overall job satisfaction index ranged from 0.88 to 0.98 (Anderson et al., 1984; Brown et al., 1998, 2006a, 2006b; Levinson, 1989; VanVoorhis & Levinson, 2006).

VanVoorhis and Levinson (2006) conducted a meta-analysis from a collection of eight school psychologist job satisfaction studies published between 1982 and 1999, all of which used the modified MSQ, and found that 85% of participants were at least satisfied with their jobs. Areas of the most satisfaction included their relationships with coworkers, the opportunity to stay busy on the job, the opportunity to work independently, and to be of service to others, while school psychologists were the least satisfied with compensation, school policies and practices, and opportunities for advancement (VanVoorhis & Levinson, 2006). More recent studies have suggested that satisfaction with specific components of a school psychologist’s job increased slightly in the previous 22-year period, with about 90% of the samples of school psychologists reporting being satisfied with their jobs (Brown et al., 2006a, 2006b; Worrell et al., 2006).

Job Satisfaction Scales (JSS)

Another measure for assessing job satisfaction specifically in school psychologists is the JSS (Reschly & Wilson, 1995), which is based upon the content of the Job Descriptive Index (JDI; Smith et al., 1969). The JDI has 90 adjectives or short phrases and is organized into five scales: work (18 items; e.g., “good,” “tiresome,” “dull,” “a source of pleasure”); supervision (26 items; e.g., “tells me where I stand,” “bad,” “tactful,” “hard to please”); colleagues (19 items; e.g., “boring,” “intelligent,” “helpful,” “talk too much”); promotion (8 items; e.g., “dead-end job,” “regular promotions,” “promotion on ability”); and pay (8 items; e.g., “insecure,” “high income,” “bad,” “income provide luxuries”; Reschly & Wilson, 1995).

In comparison to the JDI, the JSS is brief and contains 25 items representing the content of the five JDI scales: work (correlation with JDI = 0.78; α = 0.85), supervision (correlation with JDI = 0.79; α = 0.81), colleagues (correlation with JDI = 0.62; α = 0.78), promotion (correlation with JDI = 0.64; α = 0.75), and pay (correlation with JDI = 0.74; α = 0.84). Half of the items, which are negatively scored, portray a negative job feature (i.e., “My present income is *not* adequate for my needs”). The test yields a total satisfaction score (α = 0.84), as well as the scores on the five scales (α work = 0.73, α colleagues = 0.77, α supervision = 0.78, α pay = 0.85, α promotion = 0.76; Brown et al., 2006a, 2006b).

In the original study using the JSS, Reschly and Wilson (1995) found that both school psychology faculty and practitioners to be satisfied with their jobs, with faculty being more satisfied than practitioners, and the greatest satisfaction expressed with the nature of the work and colleagues. In a

subsequent study investigating regional differences in school psychology practice, the JSS was used, revealing that school psychologists were very satisfied with their colleagues and their work duties, and generally dissatisfied with the potential for promotion. Satisfaction with pay, however, varied by region, with the school psychologists from the mid-Atlantic, Northeast, East North Central, and Pacific (which offered the highest average pay) being the most satisfied with their pay (Hosp & Reschly, 2002). School psychologists that received the lowest average pay (West South Central and East South Central) were the most dissatisfied with their pay. Finally, the school psychologists from the Northeast and mid-Atlantic regions were the least satisfied with their supervisors, but were the most satisfied with their pay and enjoyed the lowest student-to-psychologist ratios (Hosp & Reschly, 2002).

Brown and colleagues (2006) conducted a comparison study in 115 licensed school psychologists from southeastern Virginia and North Carolina to assess the concurrent and construct validity of the JSS and the modified version of the MSQ in a practicing school psychologist sample. Strong internal consistency was found in both instruments, concurrent validity was established between the two instruments based upon the significant positive relationships between paired scales, and there were no significant differences between the two measures in overall job satisfaction. A four-factor solution was presented through principal axis factoring for the combined MSQ and JSS scales, accounting for 75.67% of the variance. Three MSQ scales (ability utilization, achievement, and variety) and one JSS scale (work) loaded on Factor One and accounted for 39.6% of the variance. Factor Two was comprised of MSQ scale (coworkers) and the JSS scale (colleagues), and accounted for 15.45% of the variance. For Factor Three, two MSQ scales (supervision-human relations and supervision-technical) and the JSS scale (supervision) accounted for 12.48% of the total common variance. Finally, Factor Four accounted for 8.12% of the variance, consisting of the two MSQ scales (compensation and advancement) and two JSS scales (pay and promotion). The findings reveal strong evidence of construct validity for the JSS, suggesting comparable results for the briefer measure (Brown et al., 2006a, 2006b).

Other Surveys

There have been a number of investigations in which researchers have embedded items measuring job satisfaction; both one-item and multiple-item measures. Examples of multiple-item measurements include a 15-item job satisfaction questionnaire developed by the authors for a study investigating the relationship between job satisfaction and burnout in practicing school psychologists. All items used a Likert scale in which respondents communicated their agreement with each item (i.e., *strongly agree, agree, no*

opinion, disagree, strongly disagree). Items were evaluated by independent content raters, and bivariate correlations between the three subscales of job satisfaction, burnout, and perceived effectiveness were all significant at the 0.01 level (Satisfaction and Burnout, $r=0.72$; Satisfaction and Effectiveness, $r=0.63$). Additionally, the Job Satisfaction α was 0.74, indicating acceptable internal consistency (Proctor & Steadman, 2003).

Another inquiry into school psychologists' job satisfaction was conducted using a survey developed to explore reasons why some school psychologists continue working in the field while others do not. This measure had 66 total items, and participants were asked to rate statements relating to their experience as a school psychologist on 42 items using a Likert or Likert-type scale, with options ranging from *strongly disagree* (1) to *strongly agree* (5). Questions related to job satisfaction included items about the importance of their job and overall job satisfaction. Other questions assessed various aspects of job satisfaction and engagement in the job, with researchers finding that participants' job satisfaction was strongly connected to opportunities to work directly with children and adolescents and to make a difference with these students. Participants identified strong self-efficacy regarding their contributions to children's well-being, feelings of fulfillment, and a belief of actualizing positive change through counseling and supporting students. Areas of dissatisfaction included not being satisfied with their salary despite finding their work rewarding (70% of the sample). About 47% of this sample were considering leaving school psychology due to job-related stress, as 90% "agreed" or "strongly agreed" that being a school psychologist is a stressful job. Overall job satisfaction did not appear to be related to the demographic characteristics of gender or age (Young et al., 2021).

In another study, the extent to which 471 practicing school psychologists were satisfied with the SLD assessment portion of their jobs was measured through eight items (five of which were from the Andrews and Withey Job Satisfaction Questionnaire [Rentsch & Steel, 1992]), which were adapted by adding the stem, "Thinking about your assessment practices" to tailor the items to assessment job satisfaction, specifically. Three additional items were identified during interviews with experts in the field with responses ranging from *terrible* (1), *unhappy* (2), *mostly dissatisfied* (3), *mixed* (4), *mostly satisfied* (5), *pleased* (6), and *delighted* (7), with higher scores indicating greater assessment job satisfaction ($\alpha=0.85$, $M=4.56$, $SD=1.03$). School psychologists were somewhat satisfied with the component of their jobs that were involved with SLD assessments, but were more dissatisfied than satisfied with their SLD identification practices. Participants were least satisfied with their school guidelines regarding assessment, most satisfied when working with others for SLD assessment, and were more satisfied when there was greater alignment between

preferred and actual SLD identification practices (Cottrell & Barrett, 2016).

One-item Measurement of Job Satisfaction is often included in pursuit of other research questions. For example, in a survey of the professional practices of school psychologists, Gilman and Gabriel (2003) constructed the School Psychology Perceptions Survey, and included one item measuring job satisfaction (i.e., “Within the past year, how would you rate your level of job satisfaction as a school psychologist?”), using a 4-point rating scale from *very unsatisfied* (1) to *very satisfied* (4). The school psychologists’ ($N=87$) mean job satisfaction was roughly equivalent to “somewhat satisfied” (Gilman & Gabriel, 2003).

The purpose of this study was to provide an updated, alternative, and brief instrument to measure job satisfaction, adapting questions from the Measurement of Job Satisfaction (MJS; Traynor & Wade, 1993). The MJS was developed to measure morale among community-based nurses, which can be considered an analogous occupation to school psychology. School psychology is a general practice of Health Service Psychology (APA, 2022). Similarities between the two professions include intervention at the individual and systems levels and an emphasis upon achieving total wellness through the complementary focus of mental and physical health. Taylor and Wade’s (1993) initial validation study of job satisfaction among community nurses revealed five factors: Factor One: personal satisfaction, Factor Two: satisfaction with workload, Factor Three: satisfaction with professional support, Factor Four: satisfaction with pay and prospects, and Factor Five: satisfaction with training.

Through this investigation, we adapted questions from two of the factors of the MJS (Factor One: personal satisfaction and Factor Four: satisfaction with pay and prospects), and sought to determine how many factors would be revealed in a sample of school psychologists. We selected only these two factors from the MJS, as we believed that the items were most relevant to a sample of school psychologists and would elicit the most valuable information from a short measure. This was of interest to us as first, some of the previous measures of job satisfaction used with school psychologists were lengthy, second, that much of the existing literature on this topic is dated, and third, the increasing recognition of school psychology as a health-related profession would logically connect the profession to other areas of health service provision, such as nursing.

Methods

Participants

A total of 94 Pennsylvania school psychologists participated in the current research study. Participants that completed the

study could elect to provide their email address for entry into a \$250 Amazon gift card raffle. Participants were informed the study was voluntary, and that they could withdraw from the study at any time without penalty. After agreeing to participate in the study, which was conducted prior to the COVID-19 pandemic, participants clicked on a link that transported them to the online survey tool platform through *Qualtrics*.

In order to seek the participation of school psychologists, the website of every Pennsylvania public school district listed in the most recent US Census was consulted to obtain the email addresses of their respective school psychologists. Such procedures yielded an overall sample of 710, of which 95 participated, representing a 13.4% participation rate.

Seventy-nine of the participants identified as cisgender females (84%), while 16 identified as cisgender males (16%). Eighty-six (91.5%) identified as White, three (3.2%) identified as Black or African American, two identified as Latinx (2.1%), 0 (0%) identified as Asian, and 0 (0%) identified as Native Hawaiian or Other Pacific Islander, with three participants (3.2%) choosing “Other” or preferring not to disclose their race or ethnicity. In terms of the participants’ sexual orientation, 89 (94.7%) described themselves as heterosexual, one (1.1%) as gay, and four (4.3%) as preferring not to answer. Only one respondent’s data was excluded from the analysis due to missing values.

Procedures

An email was sent to prospective participants that contained information about the general purpose of the proposed study, along with instructions about how to complete the online survey. Participants were informed the study was voluntary, and they could withdraw from the study at any time without penalty. School psychologists who opted to complete the study then proceeded to the survey portion of the investigation. After agreeing to participate in the study, participants selected a link that transported them to the online survey tool platform. The participants’ responses were completed in *Qualtrics*, an online database that includes a data encryption feature, transport layer, and security encryption in order to protect the data collection and inhibit access to anyone from outside the research group.

Measure and Data Analysis Plan

For this research study, we developed a survey that included questions about participant demographics and 61 items related to workplace conditions. Among these items, we embedded the items we adapted from the MJS (Traynor & Wade, 1993). In Table 1, we present the original items from the MJS alongside of the adapted items developed for the purposes of this study. Ten items were taken from Factor

One while five items were extracted from Factor Four from the MJS. The wording of these 15 items was changed to reflect themes of school psychology practice instead of nursing practice.

The MJS was originally developed for a longitudinal study of the morale of community nurses in the UK, and was found to have five factors through principal component analysis with varimax rotation: personal satisfaction, satisfaction with workload, satisfaction with professional support, satisfaction with pay and prospects, and satisfaction with training. Factor One: personal satisfaction comprised ten items related to feelings of worthwhile accomplishment, contributions to patient care, the use of skills, perceived challenge, the quality of work with patients, and whether the job was varied and interesting. In Factor Two: satisfaction with workload, there were seven items that assessed the amount of time necessary to complete the work, the adequacy of staffing, and the time devoted to administrative tasks. Factor Three: satisfaction with personal support included nine items that asked participants to rate their feelings of social support and perceived respect and support from supervisors and colleagues. In Factor Four: satisfaction with pay and prospects, there were eight items that were focused upon pay, clinical rank, and opportunities for promotion. Finally, in Factor Five: satisfaction with training, there were four items representing the ability of individuals to take time off from work, funding and opportunities to complete courses of study, and the sufficiency of training to perform the job

adequately. Overall job satisfaction was assessed through the completion of the 38 items from the five factors, which yielded a total job satisfaction score (Traynor & Wade, 1993).

The internal consistency, test–retest reliability, and concurrent and discriminant validity of the MJS were observed to be satisfactory, according to its authors. Internal consistency was measured as follows: Factor One: personal satisfaction $\alpha=0.88$, Factor Two: satisfaction with workload $\alpha=0.88$, Factor Three: satisfaction with professional support $\alpha=0.86$, Factor Four: satisfaction with pay and prospects $\alpha=0.87$, Factor Five: satisfaction with training $\alpha=0.84$, and total job satisfaction $\alpha=0.93$. Concurrent validity was measured by comparing the scores from the MJS with a 67-item measure developed by Price Waterhouse (1988) in a study of nurse retention and recruitment, yielding a correlation of 0.83. Finally, discriminant validity was established by distinguishing scores from practice nurses, clinical nurse specialists, district nurses, and school nurses from those supplied by health visitors, with higher scores ($p < 0.01$) obtained among the nurses in each of the five factors and the total measure (Traynor & Wade, 1993).

In the adapted instrument, the Job Satisfaction—Brief (JS-B), participants were asked to complete 15 items, subsequently described, using a 5-point Likert scale, *very dissatisfied* (1), *dissatisfied* (2), *neither satisfied nor dissatisfied* (3), *satisfied* (4), to *very satisfied* (5). The individual items are listed in Table 1 and are compared to the original items from the MJS.

Table 1 Items from the measure of job satisfaction and the Job Satisfaction—Brief

Items from the Measure of Job Satisfaction (MJS)	Items from the Job Satisfaction—Brief (JSB)
The feeling of worthwhile accomplishment I get from my work (Factor 1)	The feeling of worthwhile accomplishment I get from my work (Factor 1)
The extent to which I can use my skills (Factor 1)	The extent to which I can use my skills (Factor 1)
The contribution I make to patient care (Factor 1)	The contribution I make to children and their families (Factor 1)
The amount of challenge in my job (Factor 1)	The amount of challenge in my job (Factor 1)
The extent to which my job is varied and interesting (Factor 1)	The extent to which my job is varied and interesting (Factor 1)
What I have accomplished when I go home at the end of the day (Factor 1)	What I have accomplished when I go home at the end of the day (Factor 1)
The standard of care given to patients (Factor 1)	The standard of care given to children and their families (Factor 1)
The amount of personal growth and development I get from my work (Factor 1)	The amount of personal growth and development I get from my work (Factor 1)
The quality of my work with patients (Factor 1)	The quality of my work with children and their families (Factor 1)
The amount of independent thought and action I can exercise in my work (Factor 1)	The amount of independent thought and action I can exercise in my work (Factor 1)
The amount of pay I receive (Factor 4)	The amount of pay I receive (Factor 2)
My clinical grading (Factor 4)	My rank (Factor 2)
The degree to which I am fairly paid for what I contribute to this organization (Factor 4)	The degree to which I am fairly paid for what I contribute to this organization (Factor 2)
My prospects for promotion (Factor 4)	My prospects for promotion (Factor 2)
The opportunities I have to advance my career (Factor 4)	The opportunities I have to advance my career (Factor 2)

Results

Exploratory Factor Analysis of the Job Satisfaction—Brief

In order to examine underlying factor structures of the five items adapted from the satisfaction with pay and prospects subscale items and the 10 items adapted from the personal satisfaction subscale items of the MJS, exploratory factor analysis (EFA) was applied in the JAMOVI Version 2.3.19.0 with maximum likelihood estimation to be implemented for the ordered categorical scale (Schreiber, 2021). An EFA is an unrestricted measurement model and does not require a priori specification (Kline, 2016). A maximum likelihood estimation method with Oblimin rotation was implemented with the 15 items. The KMO test (Table 2) indicated moderate to excellent density of the correlation patterns (Schreiber, 2021).

Bartlett's test indicated the correlation matrix was not an identity matrix ($\chi^2 = 799.42, p < 0.001$). The scree plot with parallel analysis indicated two and possibly three latent factors (Fig. 1). The eigenvalues for the first three are 5.86, 1.59, and 0.47. Two factors were retained due to the rule of thumb "elbow bend" and lower bound of one. Finally, the two observed factors appear to be a parsimonious model. Item retention was based on factor loadings greater than 0.30; there is no mathematical rule for loading retention and has historically been guided by rules of thumb. Given the exploratory nature of this new instrument, we believed that 0.30 was an acceptable cut point. The factor structure with loadings and uniqueness (1- commonalities) is in Table 3, with one cross-loading

item (Item 2: "My rank"). Fit values indicate a moderate fit, although the fit values available were originally designed for confirmatory factor analysis and not exploratory. The RMSEA is 0.10 [0.07, 0.12] and the Tucker-Lewis Index (TLI) is 0.87. The correlation between the two factors is small at 0.26.

The JS-B Factor One: Satisfaction with Intrapersonal Development and Clinical Accomplishment included ten items:

- "The extent to which I can use my skills"
- "The amount of independent thought and action I can exercise in my work"
- "The amount of personal growth and development I get from my work"
- "The contribution I make to children and their families"
- "The amount of challenge in my job"
- "The feeling of worthwhile accomplishment I get from my work"
- "What I have accomplished at the end of the day"
- "The extent to which my job is varied and interesting"
- "The standard of care given to children and their families"
- "The quality of my work with children and their families."

Factor Two: Satisfaction with Advancement, Financial Compensation, and Rank included five items: "The degree to which I am fairly paid for what I contribute to this organization," "The amount of pay I receive," "My rank," "My prospects for promotion," and "The opportunities I have to advance in my career." Item 2, "My rank," also cross-loaded on Factor One. Internal consistency for each of the factors

Table 2 Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy

Item	MSA
1 "The amount of pay I receive"	0.64
2 "My rank"	0.87
3 "The degree to which I am fairly paid for what I contribute to this organization"	0.68
4 "My prospects for promotion"	0.69
5 "The opportunities I have to advance my career"	0.73
6 "The feeling of worthwhile accomplishment I get from my work"	0.91
7 "The extent to which I can use my skills"	0.94
8 "The contribution I make to children and their families"	0.92
9 "The amount of challenge in my job"	0.87
10 "The extent to which my job is varied and interesting"	0.88
11 "What I have accomplished when I go home at the end of the day"	0.89
12 "The standard of care given to children and their families"	0.95
13 "The amount of personal growth and development I get from my work"	0.88
14 "The quality of my work with children and their families"	0.89
15 "The amount of independent thought and action I can exercise in my work"	0.92
Overall	0.86

Fig. 1 Scree plot

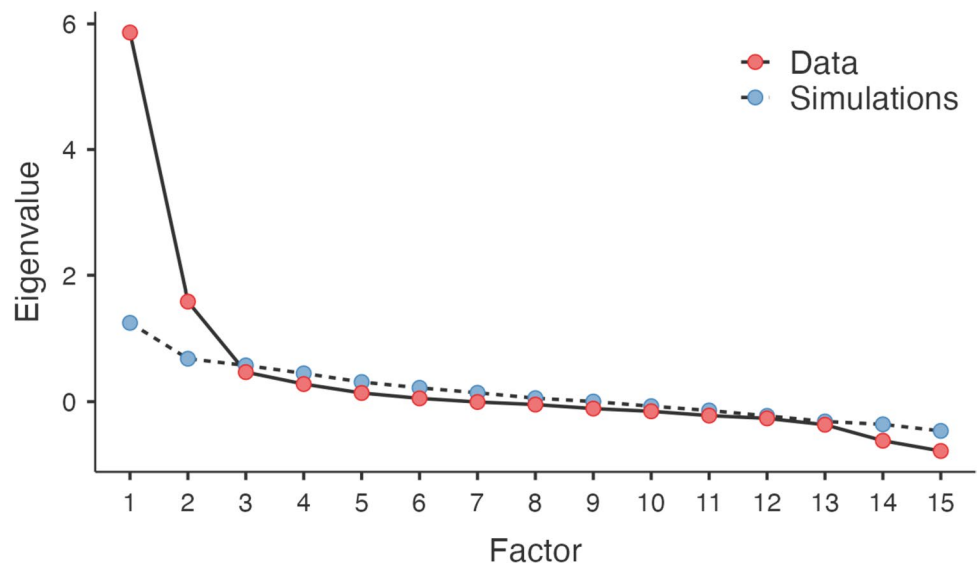


Table 3 Factor loadings

Item	Factor		Uniqueness
	1	2	
7 "The extent to which I can use my skills"	0.82		0.31
15 "The amount of independent thought and action I can exercise in my work"	0.79		0.42
13 "The amount of personal growth and development I get from my work"	0.78		0.38
8 "The contribution I make to children and their families"	0.75		0.43
9 "The amount of challenge in my job"	0.73		0.48
6 "The feeling of worthwhile accomplishment I get from my work"	0.73		0.45
11 "What I have accomplished when I go home at the end of the day"	0.66		0.46
10 "The extent to which my job is varied and interesting"	0.66		0.52
12 "The standard of care given to children and their families"	0.64		0.57
14 "The quality of my work with children and their families"	0.55		0.70
3 "The degree to which I am fairly paid for what I contribute to this organization"		0.96	0.08
1 "The amount of pay I receive"		0.89	0.22
2 "My rank"	0.34	0.55	0.48
4 "My prospects for promotion"		0.38	0.78
5 "The opportunities I have to advance my career"		0.33	0.79

was examined using Cronbach's alpha, with a value for the Satisfaction with Intrapersonal Development and Clinical Accomplishment factor of $\alpha = 0.91$ and Satisfaction with Advancement, Financial Compensation, and Rank factor value of $\alpha = 0.83$.

Discussion

Our finding that school psychologists' job satisfaction included two distinct factors, one involving service aspects of the position and the other factor primary concerning remuneration, is similar to Traynor and Wade (1993), who

found that providing service as well as pay and prospects were two of five factors that contributed to job satisfaction among community nurses. School psychology and community nursing are both clinically oriented healthcare professions, and the fact that members of both professions are concerned about service to clients and remuneration/advancement opportunities can be regarded as providing support for the concurrent validity of our instrument.

In this study, participants responded in such a way that intrapersonal development and clinical accomplishment represented one of two factors of school psychologists' job satisfaction. A number of studies have found that school psychologists have a strong desire to perceive their work as

positively impacting students and their families (Dickison et al., 2009; Worrell et al., 2006; Young et al., 2021). Our finding that clinical accomplishment is a factor in explaining school psychologists' job satisfaction is also consistent with the consensus within the research literature that a diminished sense of accomplishment is one of the primary contributors to job burnout (Maslach et al., 2001). Supervisors and the school psychology profession should concern themselves with whether school psychologists perceive their work as having a positive impact. Several recent studies have revealed that school psychologists report low levels of personal accomplishment (Boccio et al., 2016; Schilling et al., 2018).

The fact that salary/advancement was perceived by school psychologists as contributing to job satisfaction may reflect school psychologists' sense that they are not adequately compensated. When salary is perceived to be adequate, it does not contribute to job satisfaction (Pink, 2011). Young et al. (2021) found that a majority of school psychologists were dissatisfied with their salary, yet the majority of school psychologists also indicated that they found their job to be rewarding and planned to remain within the field until the end of the careers. The results of this study, along with Young et al. (2021), may suggest while salary and opportunities for advancement appear to represent a major contribution to job satisfaction for school psychologists, the opportunities to provide service to students and families is perceived as offsetting school psychologists' dissatisfaction with their salary/advancement.

We only identified one factor concerning work functions that explained school psychologists' job satisfaction, whereas previous studies found that aspects of the job tasks of school psychologists that contributed to the understanding of job satisfaction included three factors (Brown et al., 2006a, 2006b) and four factors (Reschly & Wilson, 1995). The fact that we only identified one factor is not surprising however, as our brief measure was designed to provide a general estimate of school psychologists' job satisfaction, and did not include items reflecting the ten practice model domains established by the National Association of School Psychologists (NASP; n.d.).

Implications for Practice

The finding that opportunities for intrapersonal development/clinical accomplishment contribute to school psychologists' job satisfaction is consistent with previous studies (e.g., Dickison et al., 2009; Worrell et al., 2006; Young et al., 2021), and further highlights the need to support school psychologists' desire to perceive themselves as having opportunities to positively impact the students and families they serve. A number of barriers to school psychologists' service provision have been identified in the literature, including

high caseloads, lack of administrator support, lack of teacher competency (Young et al., 2021), and lack of input regarding school district policies and procedures (Worrell et al., 2006).

These identified barriers may be characterized as systems-level issues, and as such, require organized efforts on the part of the profession to advocate for the implementation of a role for school psychologists that is perceived as meaningful by professional practitioners. Doll et al. (2020) recommend that Division 16 of the American Psychological Association (APA), which is the official voice of school psychology within the larger psychology professional body, provide leadership, develop resources, and engage in scholarship that supports school psychologists' use of a comprehensive approach that promotes the mental health of all students.

Furthermore, we argue that school psychology preparation programs should train school psychology students to engage in long-term advocacy within school districts for students' mental health. Such a role for school psychologists contributes to their job satisfaction, many of whom entered the profession in order to be able to meaningfully impact students and their families. Indeed, there is research to suggest that advocacy efforts to expand and influence the role of school psychologists contribute to a greater sense of purpose in their work (Schilling et al., 2018; VanVoorhis & Levinson, 2006). Schilling and Randolph (2021) found that school psychologists recommend that school psychology programs include comprehensive coverage of the varying aspects of their professional roles to reduce burnout. Overall, the researchers concluded that this finding is consistent with the literature that suggests that increasing employees' self-efficacy to engage in multi-faceted roles contributes to enhanced personal accomplishment.

It is important for school administrators to know that school psychologists desire opportunities to engage in what they perceive as meaningful work with students. Niskala et al. (2020) concluded from a meta-analysis of interventions to improve nurses' job satisfaction that programs that targeted intrinsic factors (e.g., professional identity and awareness) are more likely to improve job satisfaction than are programs that focus on extrinsic rewards (e.g., salary). Worrell et al. (2006), who found that one of the leading sources of job dissatisfaction for school psychologists is school district policies and procedures, recommended that school administrators involve school psychologists in the development of policies and procedures that impact the role of school psychologists. Similarly, Van Voorhis and Levinson (2006) revealed that school psychologists enjoy the social service aspect of their position, and most wish to expand their role and influence.

Many school psychologists appear to be restricted to roles involving assessment and special education decision-making due to administrator interpretation and mandates for

school psychological services (Sheridan & Gutkin, 2000), and restriction in role for school psychologists is related to elevated levels of burnout (Hosp & Reschly, 2002; Proctor & Steadman, 2003). Supervisors should seek to foster an environment that appeals to the intrinsic motivations of school psychologists. For example, supervisors may hold weekly group supervision sessions where peers highlight clinical successes in case presentations by their peers. The annual evaluation of school psychologists should focus on school psychologists' clinical growth, which may include their conceptualization of cases and ability to form meaningful relationships with students and families and implement interventions that facilitate students' social and emotional growth and academic achievement. The annual evaluation of psychologists should also focus on how school psychologist-led interventions impact student achievement on a broad scale.

Research indicates that when there is an inadequate number of school psychologists within a school district, administrators are more likely to relegate school psychologists to roles that satisfy state laws and federal mandates (Gilman & Gabriel, 2004). Magi and Kikas (2009) found that principals want school psychologists to focus on student-level rather than systems-level responsibilities. Furthermore, many principals do not perceive school psychologists as having the required knowledge and skills to implement systems-level consultation (Wood & Hampton, 2002). An organizational approach to increasing school psychologists' job satisfaction is likely to involve increasing opportunities for professional development that supports school psychologists' self-efficacy in assuming an expanded role in serving students (Schilling & Randolph, 2021). We recommend that school administrators consider using this brief instrument of school psychologists' job satisfaction as part of their annual evaluation as a way to obtain school psychologists' input regarding their position. The school psychology profession may have to educate administrators regarding the meaningful role that school psychologists can play in systems-level interventions, and how supporting school psychologists in having a multi-faceted role may increase job satisfaction and decrease burnout and turnover.

Limitations

As a point of consideration, EFA is not a statistical test or a theory test such as confirmatory factor analysis, which is a restricted form of EFA. It is an examination of potential latent factors based on a correlation matrix. Thus, different decisions can lead to different models, and obviously a different data set may indicate a different structure. For this data, some may argue for a three-factor model because of the third eigenvalue and the parallel analysis. We chose

two for several reasons, but a main one is parsimony. The two-factor model is parsimonious and allows for later tests of the two-factor structure to be made. Also, we were not trying to overfit the model to the data, which can happen in conducting multiple EFAs and CFAs and lead to modeling uniqueness in the sample that is not in the population.

Conclusion

We identified two factors for a brief measure of school psychologists' job satisfaction. One factor concerned aspects related to the role of school psychologists, intrapersonal development, and clinical accomplishment, and the other factor concerning remuneration and opportunities for advancement. These findings appear to be consistent with the previous literature suggesting that school psychologists desire opportunities to meaningfully impact students and their families (e.g., Schilling & Randolph, 2021), and perceive themselves to be inadequately compensated (e.g., VanVoorhis & Levinson, 2006). Efforts to increase school psychologists' job satisfaction, and thus reduce burnout and turnover, most likely will entail advocacy on the part of the school psychology profession and professionals to educate school administrators on the benefits of school psychologists assuming an expanded role in promoting students' academic and socio-emotional development. Such role expansion would require increased opportunities within school preparation programs and school districts for training that supports school psychologists in developing the self-efficacy necessary for assuming such an expanded role. This study provides empirical support for a brief measure of school psychologists' job satisfaction for annual performance evaluations and as part of an effort to expand the role of school psychologists.

Data Availability Others wishing to examine the original data file used for this study may contact the lead author through the email address provided.

Declarations

Conflict of Interest The authors declare no competing interests.

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Dr. Laura M. Crothers is a Duquesne University Professor of School Psychology. Dr. Crothers has been recognized as a national expert in childhood bullying by the National Association of School Psychologists and has contributed to the source literature by studying bullying in children and issues in professional school psychology.

Taylor Steeves is a recent graduate of Duquesne University with a PhD in School Psychology. She currently is a Clinical Psychology Postdoctoral Fellow, Acute Care, at Strong Memorial Hospital with the University of Rochester School of Medicine and Dentistry.

Jered B. Kolbert is a Professor in the Department of Counselor Education and School Psychology at Duquesne University. Dr. Kolbert is a certified school counselor and licensed professional counselor (LPC). Dr. Kolbert's research interests include bullying, relational aggression, the school counseling profession, gender identity, and moral development.

James B. Schreiber, Ph.D has published over 110 articles, chapters, and reviews. He is the author of texts in research methods, motivation, statistical analyses. He is the Editor of Currents in Pharmacy Teaching and Learning, Editor Emeritus of the Journal of Educational Research, and former Editor of The Journal of Experimental Education, and Genetic, Social, and General Psychology Monographs.

Ara J. Schmitt, PhD is a Professor of School Psychology at Duquesne University. Dr. Schmitt's research interests include the neuropsychological assessment and evidence-based intervention of learning problems, including those that arise from chronic illnesses; pediatric concussion; cognitive correlates of bullying; and professional issues in school psychology.

Brianna Drischler received her M.S.Ed. in Child Psychology from Duquesne University.

Kelly Paulson is a postdoctoral intern at Cognitive Behavior Institute in Pittsburgh. She earned a Master of Science degree in Child Psychology and a doctorate in school psychology (Psy.D.) at Duquesne University (2023). She examines individual factors to generate conceptualizations to align client needs with clinical practice and empirical research.

Jessica Cowley is a Ph.D. student in School Psychology at Duquesne University.

Amelia Klass is a Ph.D. student in School Psychology at Duquesne University.

Athena Vafiadis is a Ph.D. student in School Psychology at Duquesne University.

Kayla Perfetto is a Ph.D. student in School Psychology at Duquesne University.