School of Social Work: Faculty Publications and Other Works

3-2016

A Cross-National Validation of the Short Employment Hope Scale (EHS-14) in the United States and South Korea

Philip Young P. Hong
*Loyola University Chicago*, phong@luc.edu

Recommended Citation

<title>A Cross-National Validation of the Short Employment Hope Scale (EHS-14) in the United States and South Korea

<byline>Philip Young P. Hong, In Han Song, Sangmi Choi, and Jang Ho Park

Objectives: The Short Employment Hope Scale (EHS-14) has been developed in the United States to assess individual's level of psychological self-sufficiency (PSS)—a complementary measure to the widely used economic self-sufficiency (ESS) in workforce development programs. This study aims to examined the comparability of the EHS-14 between the U.S. and South Korean low-income job seeker groups. Methods: A multi-sample confirmatory factor analysis (CFA) and a series of invariance tests were conducted to validate EHS-14 using two independent samples. Further, aA latent means analysis (LMA) was used to test the latent mean difference between the two samples. Results: The results indicate that CFAs on both the U.S. and South Korean samples verified the four-factor structure of EHS-14. The study also found evidence for cross-national equivalence, based on satisfying configural, metric, scalar, and factor covariance invariance. LMA results found no significant difference between the two samples. Conclusions: EHS-14 was found to beis a reliable and valid measure with the cross-cultural applicability in the South Korean socio-politico-economic context. This measure can be used to benchmark the client empowerment process and monitor individualized human development paths to employment success.

Key words: confirmatory factor analysis; cross-cultural research; Eemployment hope; measurement invariance; psychological self-sufficiency, measurement invariance, cross-cultural research, confirmatory factor analysis
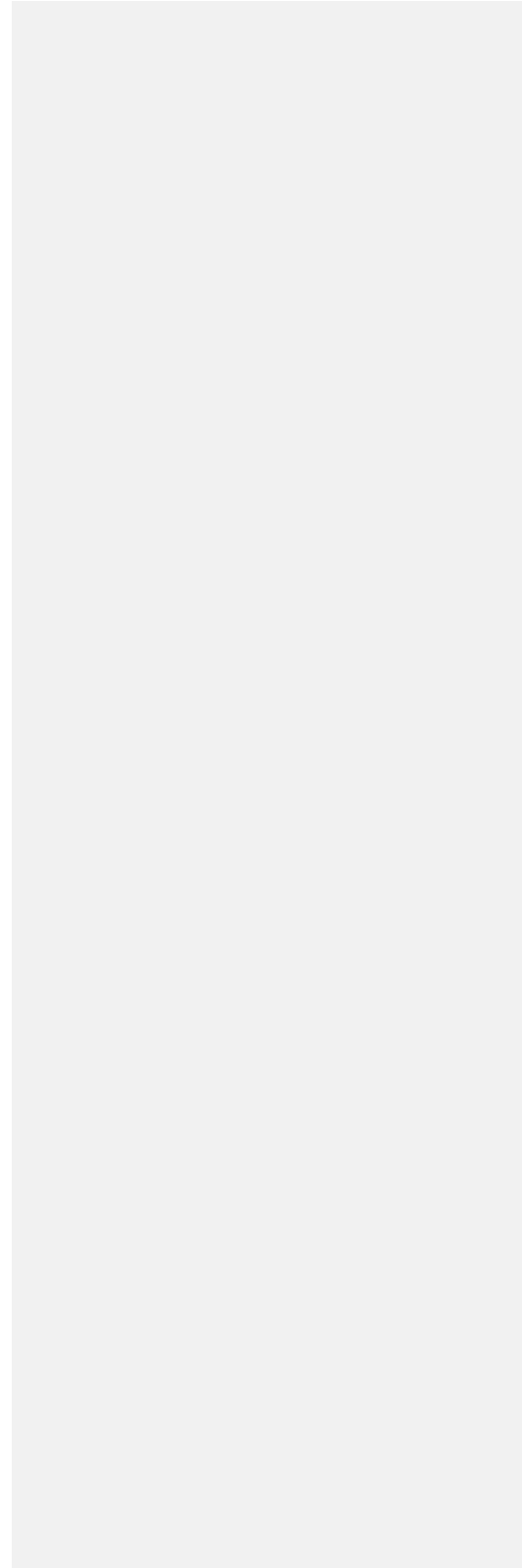
Introduction

The Employment Hope Scale (EHS) was originally conceptualized in the United States by qualitatively analyzing a series of focus group interviews with job-training program participants and service providers (Hong, 2013; Hong, Sheriff, & Naeger, 2009). A bottom-up definition of *self-sufficiency* emerged from the perspectives of clients. The "process" of developing psychological strength and making a goal-oriented progression toward realistic financial outcomes. As summarized in Table 1, this client-centered definition represented a psychological process of developing "employment hope," whose components were consistent with those of Snyder et al.'s (1991) Hope scale—that is, agency and pathways (Hong et al., 2009). More specifically, it was found that employment hope consisted of six dimensions under two higher order constructs: (1) psychological empowerment (agency component of hope that comprises self-worth, self-perceived capability, and future outlook) and (2) process of moving toward future goals (pathways component of hope that comprises self-motivation, utilization of skills and resources, and goal orientation).

Using this theoretical framework, Hong, Polanin, & Pigott (2012) initially validated the EHS using an exploratory factor analysis (EFA). This resulted in a 14-item two-factor structure: Four items loaded on the first factor labeled "psychological empowerment", and 10 items loaded on the second factor called "goal-oriented pathways." A Turkish version of EHS was later validated cross-culturally among 398 teachers in Istanbul and Kocaeli, Turkey (Akin, Hamedoglu, Kaya, & Saricam, 2013). A follow-up multi-group confirmatory factor analysis (CFA) of the EHS across two independent samples generated the modified 14-item four-factor Short EHS (EHS-14) (Hong, Choi, & Polanin, 2014). The four factors of EHS-14 are (1) psychological empowerment, (2) futuristic self-motivation, (3)

utilization of skills and resources, and (4) goal orientation.

[Insert Table 1 about here]

Employment hope as a motivational propensity toward a career goal is a salient concept in welfare-to-work and self-sufficiency studies. First, it is a concept that highlights the client-centered process of developing internal strength in conquering obstacles that stand in the way of successfully returning to the labor force (Hong, 2014). It also helps expand the view of self-sufficiency to go beyond only "inappropriately" focusing on "a rational and economic view of personhood" (Daugherty & Barber, 2001, p. 662). The former aspect represented by employment hope can be understood as psychological self-sufficiency (PSS), complementing the latter economic self-sufficiency (ESS) by bringing the client-centered approach central to the discussion of theory of change in workforce development (Hong et al., Choi, & Polanin, 2014); (see Table 1).

Second, employment hope captures low-skilled job seekers' job readiness as an intermediate process outcome that is a prerequisite to the long-term employment, retention, and earnings outcomes (Hong, 2013). Often referred to as soft skills or non-cognitive skills, behavioral and attitudinal manifestations of employment hope areis the most critical signals for job readiness that employers look for in job applicants during the hiring process (Carnochan, Taylor, Pascual, & Austin, 2014). Employment hope is the core intrapersonal skill characterized by strengthening of self-determination, internal locus of control, intrinsic motivation, resilience, and empowerment vis-à-vis the less-than-favorable labor market structure—e.g.for example, discriminatory hiring practices, distant location of jobs and lack of public transportation, inconsistent work scheduling, and so onete.—that continue to breed employment barriers.

Furthermore, employment hope shifts the dominant narrative of success in welfare-to-

Commented [SL1]: Please provide a reference for Daugherty & Barber, 2001.

Commented [PH2R1]: Daugherty, R.H. & Barber, G.M. (2001). Self-sufficiency, ecology of work, and welfare reform. *Social Service Review, 75,* 662–675.

work from client compliance—i.e.that is, job search and work requirements—to client well-being and empowerment (Thaden & Robinson, 2010). When it comes to the theory of change in workforce development, employment hope provides the major missing link inside the "black box" between input and outcome that actually contributes to transforming the psychological barriers (Weigensberg et al., 2012). As Luthans, Avolio, Avey, and Norman (2007) suggested, hope is a ' "psychological capital"' that is consistently associated with performance and job satisfaction. As such, social work has a great potential to contribute to employment hope as an empowerment concept by using research and multi-system-level interventions—starting bottom-up from micro-level individual empowerment to reach macro-level structural change in the labor market (Hong, 2014).

Despite the salience of employment hope as a concept in the United StatesU.S., it is not yet accepted as one that drives research, practice, and policy in workforce development. WhileAlthough hope is a significant 'psychological capital' that represents human potential and motivation, it is a rather overlooked resource studied within the areas of human resource and workforce development in the United StatesU.S. (Luthans, Youssef, & Avolio, 2007). South Korean scholars may have made the case that both PSS and ESS are important in terms of comprehensively evaluating workforce development programs, but there is no common measure yet that accurately captures the psychological dimension of self-sufficiency (Song, Kwon, Kim, Lee, & Park, 2013). Studies in South Korea have often nominally defined PSS as ' "intent to become self-sufficient"' but used many scattered versions as proxies for measuring this concept. This study aims to fill these gaps in the literature. Therefore, the main purpose of this study is to investigate the extent to which EHS-14 is cross-culturally comparable between the U.S. and South Korean low-skilled job seeker samples.

Commented [SL3]: Please provide a reference for Thaden & Robinson, 2010.

Commented [PH4R3]: Thaden, E., & Robinson, J. (2010). Staff narratives: Promising to change 'welfare as we know it'. *Qualitative Social Work*, 11, 23-41.

<a>Background Literature

A form of policy transfer of the U.S. model of welfare reform took place in South Korea in the aftermath of the 1997 Asian financial crisis, when the unemployment rate more than doubled from 3% to 7% (Kim, 2010). During this time, the existing social welfare system could not adequately meet the sharply increased demand for social services (Kim & Zurlo, 2007). With an abrupt collapse of the economic system and social safety net, policymakers were faced with two parallel challenges to stimulate economic growth and to expand social protection (Kwon, 2002; Shin, 2000). During this pivotal time, the Kim Dae-Jung administration promoted "productive welfare" as a policy priority, bringing together both building of welfare institutions and prescribing work incentives to reduce welfare dependency. The enactment of the National Minimum Livelihood Security Act (NMLSA) in October 2000 marked a significant welfare reform in South Korea (Yoo & Lee, 2011).

The Self-Sufficiency Program (SSP), which was established by NMLSA, is a good example of global policy transfer and convergence. It made public assistance benefits conditional on participating in workfare—government subsidized jobs—for all work-capable individuals between 18 and 65 years of age whose household incomes were below the poverty line (Kim & Zurlo, 2007). Similar to the U.S. welfare reform, the SSP's main goal is to help low-income job seekers achieve ESS by acquiring job skills and leave welfare for employment in unsubsidized jobs (Ministry of Health and Welfare, 2014).

As such, evaluation of the SSP has been outcome-focused particularly for having to benchmark ESS as the policy goal (that is, employment, welfare/program exit, and increased income). Kim and Zurlo (2007) reported that among a sample of SSP participants in South Korea only 11.1% became

employed or self-employed after exiting the program, while 76.1% remained in the program, and

12.8% dropped out. Comparing those who continue and discontinue the program, Yoo and Lee

(2011) found that SSPSelf-Sufficiency Program participants with mental health problems have a

far greater chance of leaving the program. Similar to the argument moved by Hong (2013) in the

United StatesU.S., many scholars suggested that althoughwhile focusing on the outcome may

provide a snapshot of SSPSelf-Sufficiency Program performance in a given time, it falls short of

capturing the program'sits effectiveness comprehensively in terms of highlighting the process of

reaching ESS (Lee & Cho, 2004; Park & Park, 2001; Song et al., 2013; Um, 2010).

Informed by Hong et al.'s , Sheriff, and Naeger's (2009) work in the United StatesU.S.,

Song (2012) conducted a focus group study in South Korea, and found that two necessary

conditions for successfully achieving ESS among low-income job seekers are: (1)

Eemployability and work-related experience; and (2) psycho-social capacity building. Of these

two conditions, the latter corresponds to PSS. Given that SSP participants struggle with multiple

employment barriers (Lee & Cho, 2004; Um, 2010), strengthening the psychological dimension

of self-sufficiency has received more attention when preparing low-income job seekers to enter

and advance in the labor market. Song et al. (2013) contended that the Self-Sufficiency Program

SSP evaluation should be conducted comprehensively by including the measures of both ESS

and PSS.

As the SSPSelf-Sufficiency Program participants are more likely to be women, older,

under-educated, and receiving welfare benefits, entering the labor market independent of

government subsidies becomes a daunting challenge for most participants (Um, 2010). Similar to

Hong's (2013) findings, Um (2010) asserted that focusing on the ' "process"' in the SSPSelf-

Sufficiency Program—one that involves the way in which PSS contributes to ESS—is an

important intermediary outcome in evaluation. When it comes to program retention, Yoo and Kim (2008) found that the more that participants experience positive psychological changes in their personal relationships, attitudes, and motivation, the less they tend to drop out of the SSP~~Self-Sufficiency Program~~. Psychological empowerment has been identified as one of the most effective contributors that help reduce the dropout rate.

~~While~~Although PSS is growingly found to be important in South Korea, researchers do not have a common definition or measurement of this concept (Byun, Lee, & Choi, 2007; Kim, 2006; Kwon, 2009; Park & Kang, 1999). According to previous studies in South Korea, PSS is used interchangeably with ~~'~~"desire to work~~.~~," ~~'~~"self-reliance intention~~,~~," and ~~'~~"will power to be economically self-sufficient~~.~~" Park and Kang (1999) included in their conceptualization of self-reliance intention ~~such~~ elements such as self-confidence, self-regulation, and problem-solving skills. Kwon's (2002) conceptualization of PSS as desire to work is described as the motivation to participate in the labor market to sustain a balanced self-reliant life through work. Kim (2006) and Kwon (2009) defined *willpower to become economically self-sufficient* as developing the motivation to self-support a living and the willpower and psychological capacity to meet basic needs, not by welfare but through work.

In essence, these varying conceptualizations have one similar approach in terms of tapping into the psychological process—overcoming welfare dependency and developing independence and motivation to work. As such, PSS is as diversely defined as~~:~~ (~~1~~a) intention to be self-reliant without receiving any external assistance; (~~2~~b) motivation and desire to get out of poverty and becoming independent and building a positive future outlook on employment prospects; and (~~3~~c) attitudinal change by acquiring key ingredients to become economically self-sufficient. Um (2010) attempted to converge these definitions by suggesting that PSS is a process

of moving toward ESS that involves building confidence and assurance about being able to acquire the key ingredients, by which optimism and positive work motivation areis generated.

In terms of measuring PSS, Song et al. (2013) used existing measures of perceived ESS (Gowdy & Pearlmutter, 1993) and work hope (Juntenen & Wettersten, 2006) to comprehensively measure self-sufficiency:, while other researchers have attempted to measure PSS by developing their own measures using few simple questions (Kim, 2006; Kwon, 2009; Lee & Cho, 2004). All these measures are structured in past tense to indicate that the main intentions were to evaluate the impact of SSPSelf-Sufficiency Program. For instance, Kim's (2006) 11-item scale included items such as "I became more aware that achieving my work-related goal is important" and "I am putting more effort into my work-related activities.". Kwon's (2009) 15-item scale encompassed items such as "I became aware that I need to earn my own living" and "I became more confident about the work that will become available in the future.". Lee and Cho (2004) measured participant self-assessment on work-related satisfaction and attitude using their 4four-item scale.

In this regard, this study soughtseeks to contribute to an improved comprehensive measure of the PSS process by better capturing one key element of this process—employment hope—for cross-national comparability in the United StatesU.S. and South Korea. It expands on previous efforts to confirm the modified four-factor EHS (EHS-14) and test its cross-cultural comparability by testing measurement invariance across the U.S and South Korean samples.

<a>**Method**

One of the concerns in terms ofabout extending theories or models to other countries has to dois with generalizability of the measurement instrument. Without evidence of measurement invariance, results derived from cross-cultural studies can be ambiguous and erroneous (Horn,

1991). Thus, the test of measurement invariance is a prerequisite to removing measurement biases in cross-cultural research. There is general agreement that a multi-group CFA approach represents the most powerful and versatile method to test for cross-cultural measurement invariance among various techniques (Steemkamp & Baumgartner, 1998). Using this technique, this study compared the modified four-factor model with the initial two-factor and baseline one-factor models to test for measurement equivalence across two independent samples from South Korea and the United States, comparing a series of increasingly restrictive models.

Sample and Data Collection

U.S. Sample. The first sample comprised 390 low-income job seekers at a U.S. based social services agency in the West Haven community of Chicago, surveyed between October 2008 and March 2009. This particular community is one of many in the city that is enduring the side effects of large-scale transformation of high-rise public housing and the challenges of moving its long-term unemployed residents and families to work. Community residents who make up the greater majority of the clients at the agency receive services such as job preparation and training, life skills financial literacy coaching, and other public benefits and supportive services.

The U.S. sample in general were 40.5 years old ($SD = 13.7$), African American (97.9%), female (62.4%) individuals, who lacked high school education (24.9% had no high school diploma and 44.3% completed high school or have a GED), were unemployed (79.7%), and were receiving TANF or other welfare benefits (42.3%). Close to half of the sample had participated in some form of job training in the past 10 years (41.7%). Those with income earned less than $5,000 in the previous year (57.7%).

South Korean Sample. The second sample included 458 government-funded SSP

program participants in South Korea. This sample came from 35 randomly selected job training centers among the total 247 count nationally, using a stratified sampling method. Regional districts were used as strata. Researchers contacted selected SSP centers and solicited participation. A total of 490 self-report questionnaires were sent—14 surveys sent to each 35 center—and 458 were returned, forwith a 93.47% response rate. The SSP staff members at each site administered the surveys in person or by mail between January and February of 2012. Collected surveys were mailed back to the researchers.

Similar to the U.S. sample, the South Korean sample were, in general, 47.7 years old ($SD = 8.6$), female (75.9%) participants whose education was limited (28.0% had not finished high school and about half had completed high school 51.9%). Different from the U.S. sample was that all South Korean SSP participants had previously attended job training, and slightly fewerless than two-thirds were receivingin receipt of some form of welfare benefits (62.5%).

<b>Measure: Short Employment Hope Scale (EHS-14)

This study focuseds on the construct of employment hope. Hong and his colleagues (2014) have developed and validated EHS-14, resulting in a 14-item four-factor model (Hong, Choi, & Polanin, 2014). Four items loaded on the first factor, labeled 'psychological empowerment';, two items loaded on the second factor, labeled 'futuristic self-motivation';, four items loaded on the third factor, labeled 'utilization of skills and resources';; and four items loaded on the forth factor, labeled 'goal-orientation'. Items were The measured ison a Likert-type scale ranging from 0 to 10, withwhere 0 =indicates 'strongly disagree' and 10 = indicates 'strongly agree'.

In order tTo develop the Korean version of the EHS-14, a bilingual Korean scholar with a Ph.D. degree—an expert in the area of self-sufficiency—translated the original English version into Korean. The Korean version of EHS-14 was slightly revised using comments and feedback

received from an expert panel of three academicians and practitioners. Then, the newly revised

Korean EHS-14 was backtranslated into English by a different bilingual scholar. The translated

Korean EHS-14 was checked for accuracy by comparing the backtranslated English version with

the original English version. The two versions fit closely with one another, indicating correct

translation.

<b>Statistical Analyses

The purpose of this study wasis to test measurement equivalence of EHS across the U.S. and

South Korean samples. We usedutilized a multi-group CFA, comparing a series of increasingly

restrictive models in the following hierarchical ordering of nested models: Cconfigural

invariance, metric invariance, scalar invariance, factor covariance invariance, and factor variance

invariance.

Configural invariance is a baseline model to see if the basic model structure is invariant

across groups. This initial model is critically important because one can only proceed to testing

all subsequent invariance models in the hierarchical sequence only if the configural invariance is

satisfied (i.e.that is, there are identical patterns of fixed and nonfixed parameters across the

groups) (Bollen, 1989).

Given configural invariance, metric invariance should be tested to ensure thatif the two

different groups respond to the items in the same way. The assumption of metric invariance must

be satisfied to compare meaningfully ratings obtained from different groups (i.e.that is, observed

item differences indicate group differences in the underlying latent construct) (Hong, Malik, &

Lee, 2003; Steenkamp & Baumgartner, 1998). The metric invariance can be tested by

constraining the factor pattern coefficients to be equal across groups.

When the assumption of metric invariance is met, scalar invariance is required (Meredith,

1993) to ensure that group differences in terms of the observed items should result from differences in latent constructs. Scalar invariance can be tested by constraining the intercepts of items to be equal across groups.

Invariance may also be imposed on the factor covariances and factor variances. If both the factor variance and the factor covariance are invariant, the correlations between the latent constructs are equivalent across groups (Steenkamp & Baumgartner, 1998).

The study also performeds a latent mean analysis (LMA) in the hierarchical order, as suggested by Steenkamp and Baumgartner (1998).

AMOS 20 was used to perform a multi-group CFA and LMA. The study usedemployed maximum likelihood (ML) method for estimation and full information maximum likelihood (FIML) for handling missing data.

<b>Model Assessment Criteria

Goodness-of-fit indices can be used to evaluate the degree to which the model corresponds to the data. In order tTo decrease the plausibility of chance fit and increase the robustness of derived conclusions, models were evaluated using several fit indices, which are relatively independent of sample size (Hong et al., Malik, and Lee, 2003)—the Rroot Mmean Ssquare Eerror of Aapproximation (RMSEA), the Comparative Fit Index (CFI), and the Non-normed Fit Index (NNFI). A value less than .08 is considered good fit for RMSEA (Kline, 2011), whereaswhile a statistic above .90 is considered a good fit for the CFI and NNFI (Bentler, 1990).

<a>Results

<b>Descriptive Statistics

Table 2 shows the descriptive statistics, correlations, and coefficient alphas for the latent constructs of EHS. As expected, the correlations between EHS sub-constructs awere positive and

statistically significant.

[Insert Table 2 about here]

Model Comparison

Prior to the invariance test, three alternative models—a one-factor model, a two-factor model, and a four-factor model—were evaluated in each group to test whether one common model fits the data well across two groups. The one-factor model is a baseline model in whichwhere all 14fourteen indicators are loaded on one general factor. The two-factor model was one suggested by the preliminary EFA study (Hong et al., 2012), and the modified four-factor model was presented in the recent multi-group CFA study (Hong et al., Choi, & Polanin, 2014). The model comparison is presented in Table 3. According to the fit indices of CFI, NNFI, and RMSEA, the four-factor model best fits the data across two samples and all factor loadings awere highly significant across samples (see Table 4 for detail).

[Insert Tables 3 & 4 about here]

Test of Invariance

After comparing alternative models, an invariance test was conducted on the four-factor model in the hierarchical order: Cconfigural, metric, scalar, factor variance, and factor covariance invariance. The results of each invariance test are explained in the following paragraphsbelow.

The Cconfigural invariance model is the baseline model against the other models. As reported in Table 5, the model fit was satisfactory ([$\chi^2(df) =$ 644.750 (146), RMSEA $=$ .064, CFI $=$ .957, NNFI $=$ .938]). Thus, it can be concluded that EHS-14 presents configural invariance across the two country samples, indicating that the factorial structure of the construct is equal across groups.

To test the metric invariance, the factor pattern coefficients were constrained to be equal.

Because the metric invariance model (model 2) is nested within the configural invariance model (model 1), a chi-square difference test was performed. The chi-square difference was statistically significant at α = .05, indicating that metric invariance was not supported. However, because the chi-square difference test has a well-known problem of being too sensitive to sample size (Steenkamp & Baumgartner, 1998), the fit indices of RMSEA and NNFI were also considered (Byrne, Shavelson, & Muthén, 1989; Hong et al., 2003). CFI was not used in multi-group analyses because it does not consider model parsimoniousness. That is, CFI is not a useful index in a multi-group analysis in which a more- and a less-restrictive models are compared (Hong et al., 2003). It can be interpreted that invariance is achieved when fit indices do not become deteriorated (Hong, Hwang, & Lee, 2005; Steenkamp & Baumgartner, 1998). Because model fit improved in terms of RMSEA and NNFI (ΔRMSEA = -.002, ΔNNFI = .003), full metric invariance was supported, which demonstrates that EHS-14 measures the latent variable with equivalent metrics.

With metric invariance being achieved, the next step was to test for full scalar invariance by constraining the intercepts of the 14 indicators to be the same across two groups. A chi-square difference test was performed comparing the scalar invariance model (model 3) and the metric invariance model (model 2). Because the chi-square difference was statistically significant at α = .01 ($\Delta\chi^2$ (Δdf) = 149.657 (14)) and the RMSEA and NNFI significantly deteriorated, full scalar invariance is not supported.

Because the full scalar invariance was rejected, a partial scalar invariance test was considered. To identify which indicators have invariant intercepts, the Lagrange multiplier (LM) test was performed. Examination of the LM test revealed that the significant increase in chi-square value was due to the lack of scalar invariance of four indicators: Items 3, 5, 17, 18.

Thus, the partial invariance model (model 4) was generated with the constraints on the intercepts of these four indicators relaxed, and evaluated against the metric invariance model (model 2), using a chi-square difference test ([Δx^2 (Δdf) = 54.675, $p < .001$]). Although chi-square difference was significant, model fit did not deteriorate. Hence, it can be concluded that partial scalar invariance was supported.

Next, the full factor variance invariance was rejected in terms of NNFI, RMSEA, and the chi-square difference test ([Δx^2 (Δdf) = 23.648 (4), $p < .01$; ΔRMSEA=.002; ΔNNFI = -.004]) and a partial factor variance invariance test was considered. Because the factor variance in the "psychological empowerment" factor was found to have the biggest difference between groups, we released the constraint on the "psychological empowerment" factor variance, and partial factor variance invariance was achieved ([Δx^2 (Δdf) = 3.336 (3), $p > .05$; ΔRMSEA = .001; ΔNNFI = -.002]).

As a next step, factor covariance invariance was tested with constraints on factor covariance to equal across two groups. The full factor covariance invariance was supported in terms of increased fit indices ([Δx^2 (Δdf) = 12.850 (6), $p < .01$; ΔRMSEA = -.001, ΔNNFI = .002]). The results of invariance tests are summarized in Table 5.

[Insert Tables 5 about here]

Latent Means Analysis

Baring configural, metric, and scalar invariance, we tested the latent mean difference across the two samples. In LMA, the means of a construct are compared across groups by fixing one of the construct means to zero (Hong et al., 2003), because the means of latent variables cannot be directly estimated (Hancock, 1997). Namely, the value of one group (South Korean sample) is constrained to be zero as the reference group and the estimated value of the other

group (U.S. sample) indicates the mean difference in the latent construct between the two groups. Results showed no significant difference in all the four dimensions according to the values of effect size (Cohen's *d* < .165). For Cohen's *d,* an effect size of 0.2 to 0.3 might be a 'small' effect, around 0.5 a 'medium' effect, and 0.8 to infinity a 'large' effect (Cohen, 1988).

Discussion and Conclusion

The EHS was originally designed in the United StatesU.S. to measure a psychological dimension of self-sufficiency (Hong et al., 2012; Hong et al., Choi, & Polanin, 2014). Following validation of a Turkish version of EHS (Akin et al., Hamedoglu, Kaya, & Saricam, 2013), this study further confirmed the usefulness of the modified four-factor EHS-14 in the context of the South Korean SSPSelf-Sufficiency Program. Because lack of measurement invariance evidence could equivocate conclusions and cast doubt on the theory (Horn & McArdle, 1992), the study usedemployed a series of tests to support measurement invariance of the EHS-14 across two cultural samples. The results suggest that EHS-14 is stable and reliable cross-nationally, an important consideration in evaluating the potential utility of this scale in cultural groups other than that from which it was originally developed. EHS-14 could serve as an improved measure of PSS in South Korea to help strengthen the SSPSelf-Sufficiency Program and to support subsequent burgeoning scholarly interest in PSS.

Implications for Policy, Practice, and Research

As for macro-level policy implications, many more scholars in South Korea compared withto only a handful in the United StatesU.S. have maintained that PSS is a precursor to ESS and that it should be central to planning and implementation of the SSPSelf-Sufficiency Program (Jung & Kim, 2005; Um, 2010). Even the local policy delivery system in South Korea—the Regional Self-Sufficiency Centers—allows for its key mission to focus on providing systematic supportive

services to enhance participants' motivation, willpower, and psychological capacity to meet basic needs and financially self-support their own life (The Ministry of Health and Welfare, 2014). Given the policy environment of the SSPSelf-Sufficiency Program being favorable toward PSS (Um, 2010), it is important to accurately measure PSS and invest in its progress to affectimpact ESS. As it was suggested by Hong (2013) in the United StatesU.S., PSS as a programmatic goal could be used as a process benchmark of South Korea's SSP program (Lee & Jin, 2003; Song et al., 2013). PSS can be considered the means to an end and process to the outcome of ESS. If ESS has to do with the outcome of leaving welfare dependency by way of employment, PSS is the comprehensive, transformative process that it takes for one to arrive at this state by personal effort and sacrifice (Song et al., 2013).

The current economic and financially driven policy definitions in both the United StatesU.S. and South Korea can be summarized asinto ' "having enough economic and financial resources through paid work to meet the family needs without public support."". This outcome-based definition only jeopardizes the survival of workforce development agencies when they seek full compliance with funders' performance requirements (Bratt & Keyes, 1998). This requires complete labor market dependency by the agencies in the employers' market, which in turn limits their capacity to "follow their mission to empower the most vulnerable and disconnected workers to become motivated and work ready without an immediate employment outcome" (Hong, 2013, p. 357). In other words, all the strategies that non-profit organizations useemploy to reach success in workforce development areis basically to meet the hiring needs of the employers, which is a highly dependent system. Social services serves only as subsidiary to support packaging low-skilled job applicants as good candidates.

Therefore, at the mezzo level, when success is primarily measured against an outcome-

based benchmark in the short run, it discounts any potential human capital—i.e.that is, psychological capital—unaccounted for in the process of assisting individuals to move into the labor market. Paying attention to PSS could provide a clear look inside the 'black box' of the logic model—i.e.that is, inputs, outputs, and outcomes—that represents a particular theory of change in workforce development (Weigensberg et al., 2012). Employment hope may add to the traditional explanations of how the non-profit agencies allocate their resources for training, job search, job development, and employment placement and retention for ESS outcomes. It can do this by highlighting the support services and programs that help boost one's intrinsic motivation at the individual level against a multiple barrier-filled life and at the structural level vis-à-vis an unfavorable, discriminatory labor market system.

At the micro level, employment hope as a seemingly intrapsychic concept initially suggests an individually -based empowerment practice. while further challenging the systemic issues in the labor market as a macro practice tool that can help engage the employers and policymakers (Hong, Hodge, & Choi, 2015). The individual practice informed by employment hope reflects investing in person-centered workforce development programs. Psychologically empowered individuals would be more likely to be job ready, be employable, be employed, stay employed, and be enjoying upward mobility (Hong, 2014). Such an approach could be shaped as an evidence-informed practice model that includes key factors and items of the EHS-14 as the content and modules of intervention. Focusing on developing employment hope at the individual level nudges the market to respond to further nurturing this intrinsic motivation by opening opportunities and helping empowered workers achievemake upward mobility (Hong, 2013,; 2014; Hong et al., Hodge, & Choi, 2015).

As for research implications, investigating employment hope as a component of PSS has

merit in that studies on self-sufficiency rarely examine the processes of psychological

transformation. Thus, EHS can be a useful tool for monitoring the 'process' of psychological

transformation as low-skilled job seekers make the journey toward ESS (Hong, 2014). As

employment hope and perceive employment barriers together make up PSS (Hong, 2013), it

would be important to examine, in future studies, the interplay between the two—whether EHS

is a mediator between Perceived Employment Barrier Scale (PEBS: Hong, Polanin, Key, & Choi,

2014) and ESS or it is part of a higher order latent variable PSS as they together affectimpact

ESS in future studies. Also, follow-up studies should measure the progress over time on EHS-14

and test how the change affectsimpacts the ESS outcome—both self-assessed and objective.

Employment hope as psychological capital should be investigated further to see how in concert

with other non-cognitive skills make a difference in workforce development for low-skilled job

seekers.

Also, EHS-14 has potential to provide a significant conceptual contribution to the

existing measures of 'desire to work', 'self-reliance intention', and 'willpower to be

economically self-sufficient' in the South Korean context. WhileWhereas intention, willpower,

and motivation tend to focus more on efficacy, they fall short of adequately reflecting

participants' own self-awareness, positive expectations, and pathways as they relate to specific

individualized economic and financial goals (Song, 2012). Applying EHS-14 among the South

Korean SSPSelf-Sufficiency Program participants can measure their psychological

transformation on the path to becoming empowered workers as they imagine their individual

career goals and pathways to achieve those goals (Hong, 2013,: 2014). Particularly, provided that

hope represents an independently generated, internal process-oriented power, using EHS-14 to

measure PSS among SSPSelf-Sufficiency Program participants in South Korea can add another

Commented [SL10]: Should this be the Perceived Employment Barrier Scale? If so, please provide an in-text citation and a reference for it.

Commented [PH11R10]: Yes, it is. Thank you. Perceived Employment Barrier Scale (PEBS)

Commented [PH12R10]: Hong, P.Y.P., Polanin, J.R., Key, W., & Choi, S. (2014). Development of the Perceived Employment Barrier Scale (PEBS): Measuring psychological self-sufficiency. *Journal of Community Psychology, 42*, 689-706.

layer of knowledge to the previous work on capturing change in socio-psychological capacity among low-income job seekers (Song, 2012).

Self-sufficiency is a policy goal promoted by the U.S. welfare reform and adopted by many governments through global policy transfer. The United States is As the exporting country of ESS as a market-based ideal, but itsthe U.S. policy remains completely detached from the strengths-based human development, empowerment, and positive psychological perspectives. with self-sufficiency being viewed primarily as an economic outcome (Hong, 2013; Hong et al., 2012; Hong, 2013). South Korea as a newly adopting country of the concept of ESSeconomic self-sufficiency in policy development has been able to refine the definition of ESSself-sufficiency to be a more holistic one that includes psycho-social well-being. A person-centered workforce development policy can be effected in South Korea by articulating the problem definition based on employment hope. South Korea could provide a feedback loop in policy transfer, returning the learning back to the United StatesU.S. about the importance of PSS, and, particularly, employment hope. Brining the ' "human"' back into human resource development practice could shift the employer-dependent labor matching system to be more balanced between the supply and demand in both capitalist markets (Hong, 2013).

<b>Limitations

Findings need to be understood within the confines of the study's limitations. Each sample has a different geographic scope. While tThe U.S. sample represents clients at one social services agency in Chicago, IL, whereas the South Korean counterpart is representative of the national SSPSelf-Sufficiency Program participants. Although one could argue that data from one local agency cannot adequately represent low-skilled job seekers in the United StatesU.S., EHS-14 has been validated with the same factor structure in at least three different sites (Hong et al., 2012;

Hong et al., Choi, & Polanin, 2014), and with one additional international sample in Turkey

(Akin et al., 2013). It is currently being validated with data from various different sites across the

United StatesU.S., and it has been translated into Spanish. Given the consistency in the results of

EHS-14 validation in multiple U.S. samples, yet the variations in the composition of participants,

types of programming, level of resources, and regional job opportunities, it is justifiable to have

used one particular site as the reference sample group to which the South Korean one was

compared for validation.

　　　　This study is significant in that it extended the validation of EHS-14 from the United

StatesU.S. with predominantly African American low-income job seeker samples to that of the

South Korean SSPSelf-Sufficiency Program participants. Although the argument for policy

transfer may hold in the way that U.S. welfare reform brought about that in South Korea, the

legislations and regulations governing work participation requirement and welfare receipt criteria

are culturally bound and are therefore different. Despite the limitations, it would be important to

conclude that EHS-14 is a cross-nationally validated comprehensive measure that captures one

key component of PSS. It would be important to continue replicating the use of EHS-14 with

other ethnic groups in the United StatesU.S. and in other national contexts. Also, EHS-14 can

help generate data to develop evidence-informed, person-centered interventions appropriate in

both the U.S. and South Korean policy contexts to promote PSS as it leads to ESS. Using EHS-

14 as a tool for engaging clients, service providers, and employers, social workers can be leaders

in workforce development to advocate for a process-driven practice and evaluation for

vulnerable job seekers and workers in the labor market.<dgbt>

<a>**References**

Akin, A., Hamedoglu, M. A., Kaya, C., & Saricam, H. (2013). Turkish version of Employment

Hope Scale: The validity and reliability study. *IIB International Refereed Academic Social Science Journal, 4*, 56–68.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238–246.

Bollen, K. A. (1989). *Structural equations with latent variables.* New York: John Wiley & Sons.

Bratt, R. G., & Keyes, L. C. (1998). Challenges confronting nonprofit housing organizations' self-sufficiency programs. *Housing Policy Debate, 9*, 795–824.

Byrne, B. M., Shavelson, R. J., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structure: The issue of partial measurement invariance. *Psychological Bulletin, 105*, 456–466.

Byun, G. R., Lee, J. E., & Choi, S. C. (2007). Impacts of psycho-social factors on single mother's will of self-reliance in single mother family shelters: Focusing on the moderating effect of social support. *Korean Journal of Family Social Work, 21*, 139–166.

Carnochan, S., Taylor, S., Pascual, G., & Austin, M. J. (2014). Employer perspectives on the role of soft skills in subsidized employment relationships. *Families in Society, 95*, 187–194.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Gowdy, E., & Pearlmutter, S. (1993). Economic self-sufficiency: It's not just money. *Affilia, 8*, 368–387.

Hancock, G. R. (1997). Structural equation modeling methods of hypothesis testing of latent variable means. *Measurement and Evaluation in Counseling and Development, 30*, 91–105.

Hong, P.-Y.-P. (2013). Toward a client-centered benchmark for self-sufficiency: Evaluating the

‘process’ of becoming job ready. *Journal of Community Practice, 21*, 356–378.

Hong, P.-Y.-P. (2014). Employment hope: A path to empowering disconnected workers. In E. J. Clark & E. F. Hoffler (Eds.), *Hope matters: The power of social work* (pp. 143–148). Washington, D.C.: NASW Press.

Hong, P.-Y.-P., Choi, S., & Polanin, J. R. (2014). A multi-sample confirmatory factor analysis of the Short Employment Hope Scale (EHS-14). *Journal of Social Service Research, 40*, 339–352.

Hong, P.-Y.-P., Hodge, D. R., & Choi, S. (2015). Spirituality, hope, and self-sufficiency among low-income job seekers. *Social Work, 60*, 155–164.

Hong, P.-Y.-P., Polanin, J. R., & Pigott, T. D. (2012). Validation of the Employment Hope Scale: Measuring psychological self-sufficiency among low-income jobseekers. *Research on Social Work Practice, 22*, 323–332.

Hong, P.-Y.-P., Sheriff, V. A., & Naeger, S. R. (2009). Bottom-up definition of self-sufficiency: Voices from low-income jobseekers. *Qualitative Social Work, 8*, 357–376.

Hong, S., Hwang, M. H., & Lee, E. S. (2005). Latent means analysis of the Career-Barrier Scale for Korean female adolescents. *Korean Journal of Educational Psychology, 19*, 1159–1177.

Hong, S., Malik, M. L., & Lee, M. K. (2003). Testing configural, metric, scalar, and latent mean invariance across genders in sociotropy and autonomy using a non-western sample. *Educational and Psychological Measurement, 63*(4), 636–654.

Horn, J. L. (1991). Comments on 'Issues in factorial invariance'. In L. M. Collins, & J. L. Horn (Eds.), *Best methods for the analysis of change* (pp. 114–125). Washington, D.C.: American Psychological Association.

Horn, J. L., & McArdle, J. J. (1992). A practical and theoretical guide to measurement invariance

in aging research. *Experimental Aging Research, 18,* 117–144.

Jung, W. O., & Kim, J. G. (2005). Subjective evaluation of public assistance recipients on the

self-support programs and the future prospect on economic independency. *Korean

Journal of Social Welfare Studies, 28*, 35–67.

Juntenen, C. L., & Wettersten, K. B. (2006). Work hope: Development and initial validation of a

measure. *Journal of Counseling Psychology, 53*, 94–106.

Kim, S. E. (2006). *Study on the factors influencing self-reliance motivation and the activities

related to employment founding of a business in self-supporting program participators*

(Unpublished doctoral dissertation). Kyonggi University, Seoul, Republic of Korea.

Kim, S. T. (2010). *Korea's unemployment insurance in the 1998 Asian financial crisis and

adjustments in the 2008 global financial crisis*. ADBI Working Paper Series (No. 214).

Tokyo: Asian Development Bank Institute.

Kim, T. K., & Zurlo, K. A. (2007). Factors that influence workfare program participants:

Focusing on South Korea's self-sufficiency program. *International Social Work, 50*, 551–

564.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York:

Guilford Press.

Kwon, H. (2002). Welfare reform and future challenges in the republic of Korea: Beyond the

developmental welfare state? *International Social Security Review, 55,* 23–38.

Kwon, Y. (2009). *Mediating effects of job satisfaction in the influence of the quality of self-

sufficiency services on the will to self-sufficiency* (Unpublished doctoral dissertation).

Daegu University, Gyengbuk, Republic of Korea.

Lee, H., & Cho, W. (2004). Factors influencing self-sufficiency effect of workfare in the self-

sufficiency promotion agency. *Social Welfare Policy, 20*, 217–244.

Lee, S., & Jin, J. (2003). A study on the effects of the antipoverty policy in local community:

Focusing on the self-support system in Korea. *Korean Journal of Social Welfare, 52*,

241–272.

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital:

Measurement and relationship with performance and satisfaction. *Personnel Psychology,

60*, 541–572.

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the

human competitive edge.* New York: Oxford University Press.

Meredith, W. (1993). Measurement invariance, factor analysis, and factorial invariance,

Psychometrika, 58, 525–543.

Ministry of Health and Welfare, The. (2014). A profile of the Self-Sufficiency Program.

Republic of Korea.

Park, K. S., & Park, N. W. (2001). *Survey of low-income female head of household and the

development of the Self-Sufficiency Program* (Gyeonggi Government Publication No.

GOVP 1200104421). Gyeonggi, Republic of Korea: Gyeonggi Government Printing

Office.

Park, Y. R., & Kang, C. H. (1999). A study on the factors that predict low-income single mothers'

sense of self-reliance. *Korean Journal of Family Social Work, 5*, 91–116.

Rodgers, H. (2003). Welfare reform: Making work really work. *The Policy Studies Journal, 31*,

89–100.

Shin, D. (2000). Financial crisis and social security: The paradox of the Republic of Korea.

International Social Security Review, 53, 83–107.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., & Sigmon, S. T. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570–585.

Song, I. H. (2012). *A mental health approach to comprehensive self-sufficiency: Development of comprehensive self-sufficiency and Employment Hope Scale.* Seoul, South Korea: Yonsei University Press.

Song, I. H., Kwon, S., Kim, T., Lee, H., & Park, J. H. (2013). Domestic application of Economic Self-Sufficiency (ESS) and Work Hope Scale (WHS): A study on constructing a measurement for comprehensive understanding of self-sufficiency. *Journal of Korean Social Welfare Administration, 40*, 31–64.

Steenkamp, J. B. E., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research, 25*, 78–107.

The Ministry of Health and Welfare (2014). A profile of the Self-Sufficiency Program. Republic of Korea.

Um, T. Y. (2010). A study on the influence of emotional self-sufficiency to the barriers to economic self-sufficiency among the program participants. *Social Science Research Review, 26*, 229–248.

Weigensberg, E., Schlect, C., Laken, F., Goerge, R., Stagner, M., Ballard, P., & DeCoursey, J. (2012). *Inside the black box: What makes workforce development programs successful?* Chicago, IL: University of Chicago, Chapin Hall at the University of Chicago.

Yoo, T. K., & Kim, K. H. (2008). A study on the factors affecting the likelihood of the self-sufficiency program participants' drop-out. *Korean Social Security Studies, 24*, 283–306.

Yoo, T. K., & Lee, S. H. (2011). Does mental health affect continued participation in the

workfare program? The South Korean case. *International Social Work, 54*, 551—564.

<author blurb>**Philip Young P. Hong, PhD,** is professor, School of Social Work, Loyola

University Chicago, 820 N. Michigan Ave. LT 1238, Chicago, IL 60611; e-

mail: phong@luc.edu. **In Han Song, PhD,** is associate professor, Yonsei University, Seoul,

South Korea. **Sangmi Choi, PhD,** is assistant professor, Soongsil University, Seoul, South

Korea. **Jang Ho Park, MS,** is a doctoral student, Loyola University Chicago.

Table 1.

Conceptualizations of Economic and Psychological Self-sufficiency

Types of Self-sufficiency	Key Content Areas	Elements/factors	
Economic self-sufficiency (ESS; outcome)	Employment and financial outcome	• Employment • Financial independence • Economic security	
Psychological self-sufficiency (PSS; process)	Employment hope	• Psychological empowerment (agency)	• Self-worth • Self-perceived capability • Future orientation
		• Goal-oriented pathway (pathways)	• Self-motivation • Utilization of resources and skills • Goal orientation
	Perceived employment barriers	• Physical and mental health • Labor market exclusion • Child care • Human capital • Soft skills	

Table 2.

Descriptive, Bivariate Statistics and Coefficient Alphas of the Latent Constructs of EHS in the United States and South Korean Samples

	United States (*N* = 390)		South Korean (*N* = 452)		1	2	3	4
	M	*SD*	*M*	*SD*				
1 Empowerment	8.1	2.6	7.1	2.0	(.949/.898)	.73**	.73**	.69**
2 Self-motivation	7.2	2.7	6.6	2.3	.69**	(.833/.771)	.74**	.74**
3 Skills & resources	7.8	2.6	6.7	2.1	.70**	.84**	(.949/.912)	.78**
4 Goal-orientation	7.4	2.7	7.2	2.2	.69**	.84**	.88**	(.931/.924)

Notes: EHS = Employment Hope Scale. Lower diagonal = U.S. sample, upper diagonal = Korean sample. The alpha coefficients are reported in parenthesis (U.S. / Korean).

**p < .01.

Table 3:

Model Comparison

Data	EHS Model	χ^2 (df)	RMSEA (90% CI)	NNFI	CFI	AIC
U.S.	One factor	1206.880 (77)	.194 (.185 – .204)	.750	.816	1,290.880
Sample	Two factor	374.975 (76)	.101 (.091 – .111)	.933	.951	460.975
	Four factor	254.248 (73)	.080 (.070 – .091)	.958	.971	346.248
South	One factor	980.716 (77)	.160 (.151 – .169)	.774	.834	1,064.716
Korean	Two factor	699.684 (76)	.134 (.125 – .143)	.842	.886	785.684
Sample	Four factor	390.519 (73)	.095 (.085 – .105)	.916	.942	482.519

Note: EHS = Employment Hope Scale; RMSEA = root mean square error of approximation; CI = confidence interval; NNFI = non-normed fit index; CFI = comparative fit index; AIC = Akaike's information criterion NNFI=non-normed fit index, RMSEA=root mean square error of approximation; CI=confidence interval

Table 4:

Factor Loadings for the Modified Four-Factor Model

Factor	Items	U.S.	South Korean
Psychological empowerment	3. When working or looking for a job, I am respectful towards who I am.	.971 (.868)	.928 (.780)
	4. I am worthy of working in a good job.	1.091 (.920)	1.006 (.872)
	5. I am capable of working in a good job.	1.134 (.978)	.946 (.819)
	6. I have the strength to overcome any obstacles when it comes to working.	1.000 (.879)	1.000 (.865)
Futuristic Self-motivation	11. I am going to be working in a career job.	1.000 (.793)	1.000 (.716)
	15. I feel energized when I think about future achievement with my job.	1.060 (.899)	1.086 (.883)
Utilization of skills and resources	17. I am aware of what my skills are to be employed in a good job.	.860 (.862)	.905 (.796)
	18. I am aware of what my resources are to be employed in a good job	.950 (.906)	.902 (.829)
	19. I am able to utilize my skills to move toward career goals.	1.000 (.940)	1.000 (.891)
	20. I am able to utilize my resources to move toward career goals.	1.028 (.913)	.913 (.865)
Goal-orientation	21. I am on the road toward my career goals.	1.042 (.892)	.996 (.911)
	22. I am in the process of moving forward reaching my goals.	1.000 (.915)	1.000 (.934)
	23. Even if I am not able to achieve my financial goals right away, I will find a way to get there.	.829 (.830)	.802 (.802)
	24. My current path will take me to where I need to be in my career.	.954 (.892)	.909 (.834)

Notes: Parameter estimates are unstandardized values. Standardized values are given in parenthesis.

Commented [PH1]: Utilize is the term used in the published version of EHS. If it is okay with you, I would like to keep it the way it is.
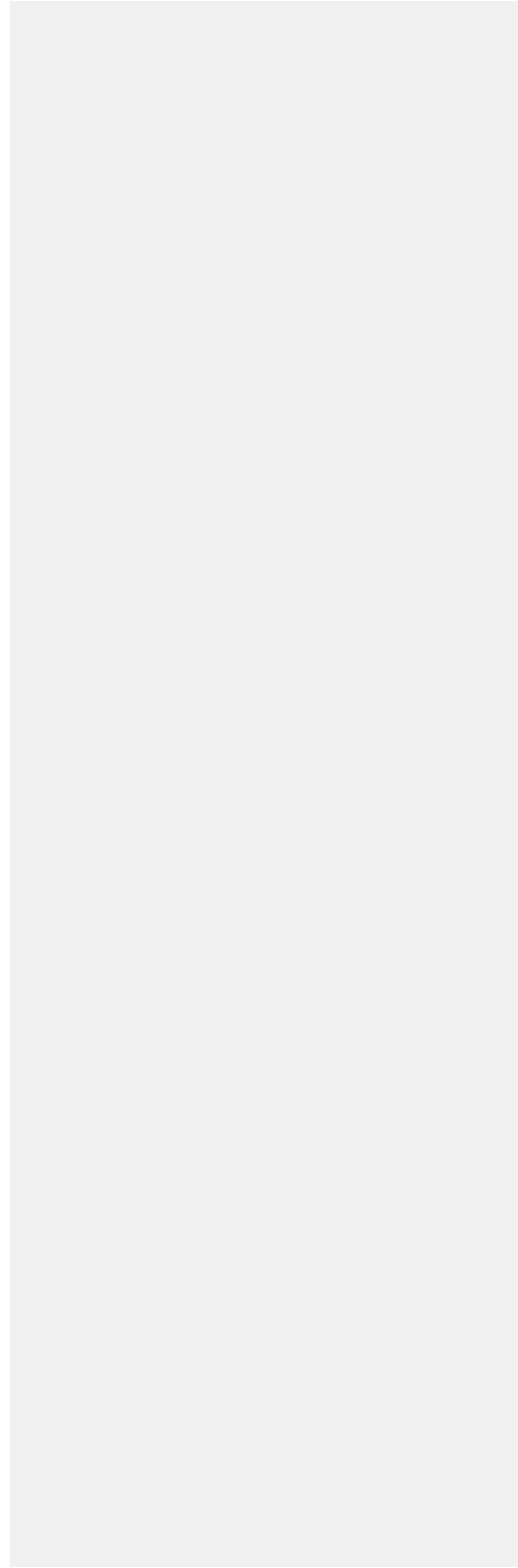
All the estimates are statistically significant at the .001 level.

Table 5:

The Results of Invariance Test on the Short Employment Hope Scale EHS-14

Model (Sample)	χ^2 (df)	RMSEA (90% CI)	NNFI	
Configural invariance: Model 1	644.750 (146)	.064 (.059-.069)	.938	Accepted
	$\Delta \chi^2$ (Δ df)	Δ RMSEA	ΔNNFI	
Full metric invariance: model 1 vs. model 2	22.113 (10)*	-.002	.003	Accepted
Full scalar invariance: model 2 vs. model 3	149.657(14)**	.005	-.001	Rejected
Partial scalar invariance: model 2 vs. model 4	54.675 (10)**	.000	.000	Accepted
Full factor variance invariance: model 4 vs. model 5	23.648 (4)**	.002	-.004	Rejected
Partial factor variance invariance: model 5 vs. model 6	3.336 (3)	.001	-.002	Accepted
Full factor covariance invariance: model 5 vs. model 7	12.85 (6)*	-.001	.002	Accepted

Notes: RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; NNFI = non-normed fit index, RMSEA=root mean square error of approximation; CI=confidence interval