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

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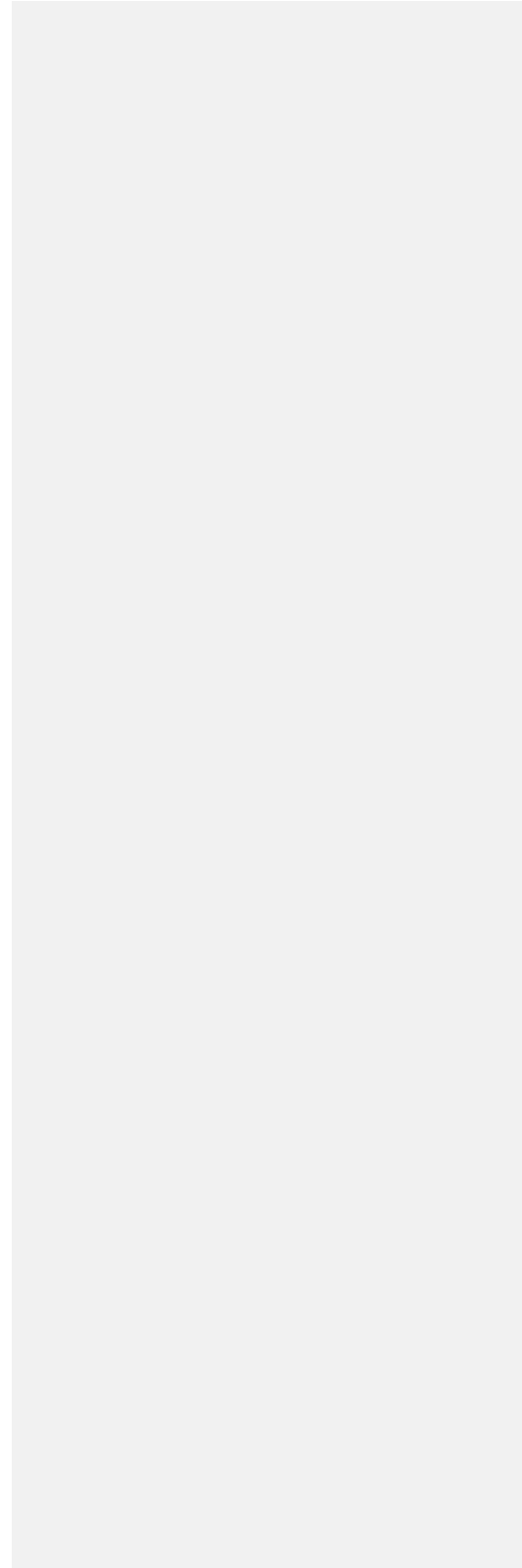
<title>A Cross-National Validation of the Short Employment Hope Scale (EHS-14) in the
[United States](#) and South Korea

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

<abstract>~~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 examine~~ 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, a~~ 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 be a reliable and valid measure with the
cross-cultural applicability in the South Korean socio-political-economic context. This measure
can be used to benchmark the client empowerment process and monitor individualized human
development paths to employment success.

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Key words: [confirmatory factor analysis](#); [cross-cultural research](#); [Employment 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; Hong, 2013). A bottom-up definition of *self-sufficiency* that emerged from the perspectives of clients is: 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—i.e., 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-et-al. (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 Employment Hope Scale (EHS-14) (Hong, Choi, & Polanin, 2014). The four factors of EHS-14 are included (1) psychological empowerment, (2) futuristic self-motivation, (3)

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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 are 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 on etc.—that continue to breed employment barriers.

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

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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 States, it is not yet accepted as one that drives research, practice, and policy in workforce development.

While Although 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 States (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.

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[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 [upon](#) 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 Self-Sufficiency Program](#)'s main goal is to help low-income job seekers achieve ESS by acquiring job skills and leave welfare for employment in unsubsidized jobs ([The](#) Ministry of Health and Welfare, 2014).

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

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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 [SSP Self-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 States U.S.](#), many scholars suggested that ~~although~~ while focusing on the outcome may provide a snapshot of [SSP Self-Sufficiency Program](#) performance in a given time, it falls short of capturing ~~the program's~~ 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 States U.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) ~~Em~~employability 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 ~~ed~~ that the [Self-Sufficiency Program SSP](#) evaluation should be conducted comprehensively by including the measures of both ESS and PSS.

As the [SSP Self-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 [SSP Self-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.

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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: ~~(1a)~~ intention to be self-reliant without receiving any external assistance; ~~(2b)~~ motivation and desire to get out of poverty and becoming independent and building a positive future outlook on employment prospects; and ~~(3c)~~ 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 ~~are~~ generated.

In terms of measuring PSS, Song et al. (2013) used existing measures of perceived ESS (Gowdy & Pearlmutter, 1993) and work hope (Juntunen & 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 ~~SSP~~Self-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 ~~4~~four-item scale.

In this regard, this study ~~sought~~seeks 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 States~~U.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.

Method

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

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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 (Steenkamp & 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, they earned less than \$5,000 in the previous year (57.7%).

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

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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, ~~for~~with 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 fewer than two-thirds were ~~receiving~~in receipt of some form of welfare benefits (62.5%).

Measure: Short Employment Hope Scale (EHS-14)

This study focused 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 fourth factor, labeled 'goal-orientation'. Items were measured on a Likert-type scale ranging from 0 to 10, with where 0 indicates 'strongly disagree' and 10 indicates 'strongly agree'.

In order to 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

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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.

Statistical Analyses

The purpose of this study ~~was~~ to test measurement equivalence of EHS across the U.S. and South Korean samples. We ~~used~~ utilized a multi-group CFA, comparing a series of increasingly restrictive models in the following hierarchical ordering of nested models: ~~C~~configural 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 ~~that~~ 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,

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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 performed eds 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 used employed maximum likelihood (ML) method for estimation and full information maximum likelihood (FIML) for handling missing data.

Model Assessment Criteria

Goodness-of-fit indices can be used to evaluate the degree to which the model corresponds to the data. In order to 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 Root Mean Square Error of Approximation (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), whereas while a statistic above .90 is considered a good fit for the CFI and NNFI (Bentler, 1990).

Results

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 were positive and

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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 which where all 14 fourteen 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 were 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: configural, metric, scalar, factor variance, and factor covariance invariance. The results of each invariance test are explained in the following paragraphs below.

The configural 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.

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Because the metric invariance model (M₂ model 2) is nested within the configural invariance model (M₁ model 1), a χ^2 chi-square difference test was performed. The χ^2 difference was statistically significant at $\alpha = .05$, indicating that metric invariance was not supported. However, ~~because since~~ the χ^2 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.*, Malik, & Lee, 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 where~~ a more- and a less-restrictive models are compared (Hong *et al.*, Malik, & Lee, 2003). It can be interpreted that invariance is achieved when fit indices do not become deteriorated (Hong, Hwang, & Lee, 2005; Steenkamp & Baumgartner, 1998; Hong, Hwang, & Lee, 2005). Because model fit improved in terms of RMSEA and NNFI (Δ RMSEA = $-.002$, Δ NNFI = $.003$), 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~~fourteen indicators to be ~~the~~ same across two groups. A χ^2 difference test was performed comparing the scalar invariance model (M₃ model 3) and the metric invariance model (M₂ model 2). Because the χ^2 difference was statistically significant at $\alpha = .01$ ($\Delta\chi^2$ (Δdf) = 149.657 (14)) and the RMSEA and NNFI significantly deteriorated, full scalar invariance is not supported.

~~Since~~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 χ^2 value was due to the lack of scalar invariance of four indicators: Items 3, 5, 17, 18.

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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 χ^2 difference test ($\Delta \chi^2 (\Delta df) = 54.675, p < .001$). Although chi-square χ^2 difference was significant, model fit did not deteriorate. Hence, it can be concluded that partial scalar invariance ~~is~~ was supported.

Next, the full factor variance invariance was rejected in terms of NNFI, RMSEA, and the chi-square χ^2 difference test ($\Delta \chi^2 (\Delta df) = 23.648 (4), p < .01; \Delta RMSEA = .002; \Delta NNFI = -.004$) and a partial factor variance invariance test was considered. ~~Since~~ 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 ($\Delta \chi^2 (\Delta df) = 3.336 (3), p > .05; \Delta RMSEA = .001; \Delta NNFI = -.002$).

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 ($\Delta \chi^2 (\Delta df) = 12.850 (6), p < .01; \Delta RMSEA = -.001, \Delta NNFI = .002$). 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., Malik, & Lee, 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

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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).

<a>Discussion and Conclusion

The EHS was originally designed in the [United States](#) 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 SSP Self-Sufficiency Program](#). Because lack of measurement invariance evidence could equivocate conclusions and cast doubt on the theory (Horn & McArdle, 1992), the study [used](#) 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 [SSP Self-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 [with](#) only a handful in the [United States](#) have maintained that PSS is a precursor to ESS and that it should be central to planning and implementation of the [SSP Self-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

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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 [SSP Self-Sufficiency Program](#) being favorable toward PSS (Um, 2010), it is important to accurately measure PSS and invest in its progress to [affect impact](#) ESS. As ~~it was~~ suggested by Hong (2013) in the [United States U.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 States U.S.](#) and South Korea can be summarized ~~as into~~ [“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 [use employ](#) to reach success in workforce development ~~are~~ 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 [affect/impact](#) ESS ~~in future studies~~. Also, follow-up studies should measure the progress over time on EHS-14 and test how the change [affects/impacts](#) 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. ~~While/Whereas~~ 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 [SSP Self-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 [SSP Self-Sufficiency Program](#) participants in South Korea can add another

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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 A 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).

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Limitations

Findings need to be understood within the confines of the study’s limitations. Each sample has a different geographic scope. Whilethe U.S. sample represents clients at one social services agency in Chicago, It, 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;

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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 States](#)~~U.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 States](#)~~U.S.~~ with predominantly African American low-income job seeker samples to that of the South Korean [SSP](#)~~Self-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 States](#)~~U.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>

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Table 1:-

Conceptualizations of **e**Economic and **p**Psychological **s**Self-sufficiency

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Types of s Self-sufficiency	Key e Content a Areas	Elements/factors
Economic self-sufficiency (ESS ; O outcome)	Employment and financial outcome	<ul style="list-style-type: none"> ▪ Employment ▪ Financial independence ▪ Economic security
Psychological self-sufficiency (PSS ; P process)	Employment hope	<ul style="list-style-type: none"> ▪ Psychological empowerment (agency) ▪ Self-worth ▪ Self-perceived capability ▪ Future orientation
	Perceived employment barriers	<ul style="list-style-type: none"> ▪ Goal-oriented pathway (pathways) ▪ Self-motivation ▪ Utilization of resources and skills ▪ Goal orientation
		<ul style="list-style-type: none"> ▪ 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

	U.S. 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).

** $p < .01$.

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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

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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)

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Note:- Parameter estimates are unstandardized values. Standardized values are given in parenthesis.

All the estimates are statistically significant at the .001 level.

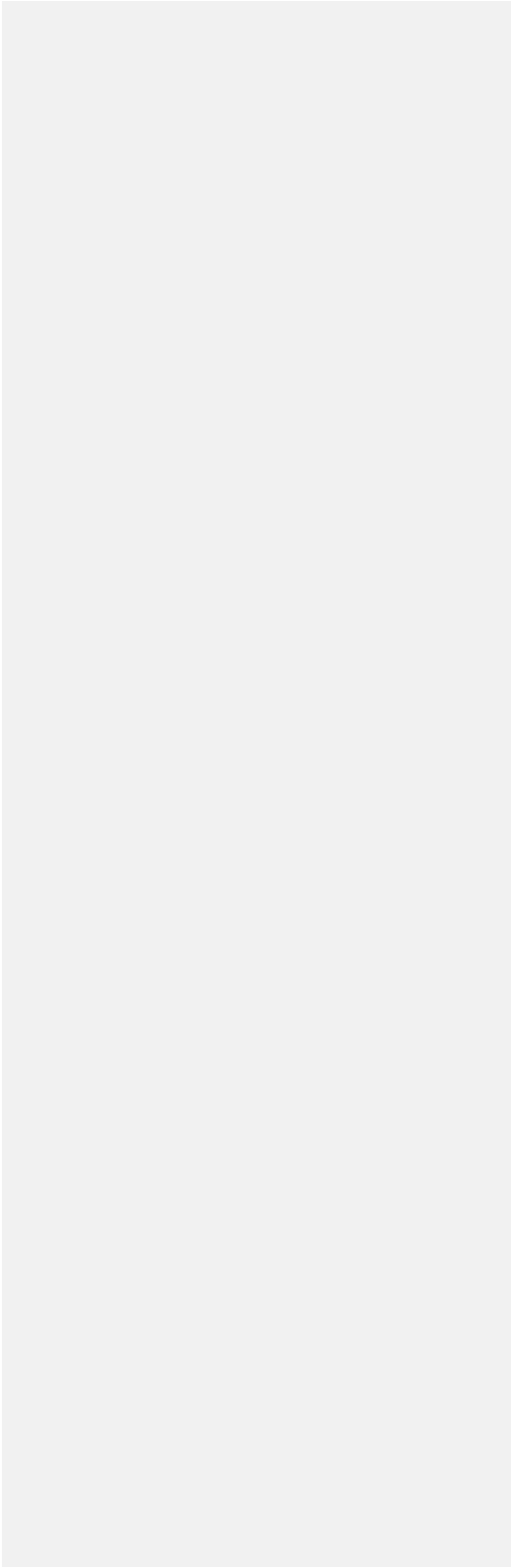


Table 5:-

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

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

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