

FROM TRANSLATION TO APPLICATION: CROSS-CULTURAL VALIDATION AND PSYCHOMETRIC EVALUATION OF THE HERTH HOPE INDEX IN URDU FOR PROBATIONERS IN PAKISTAN

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ABSTRACT

Probationers are a vulnerable population who often experience social stigma, uncertainty, and personal challenges in coping with the distressing aspects of life. They may feel overwhelmed by guilt, and society usually reinforces negative behavior. In such circumstances, hope can inspire positive thinking patterns, providing the strength needed for change. In such situations, hope instills the vision of optimistic thinking patterns that give the strength to change (Maruna, 2001). This current study aimed to translate and adapt the Herth Hope Index scale into Urdu. A standardized forward-backward translation procedure was employed to ensure linguistic accuracy and cultural relevance. After that, the expert reviewed the translated version, and pilot testing was done on a sample of 30 probationers. Lastly, data were collected from 500 male probationers, and a confirmatory factor analysis was run to confirm the factor structure and psychometric robustness. The composite reliability of the scale is .86, which shows the translated scale is reliable and has excellent discriminant validity, indicating its suitability for assessing hope among the probationers of South Asian countries like Pakistan.

Keywords: Probationer, Herth Hope Index, Confirmatory factor analysis,

INTRODUCTION

Hope is like the first ray of sunlight, making life brighter and more radiant. It serves as a guiding light, illuminating the path ahead and providing motivation to pursue one's dreams, even in challenging times. Positivity in human life gives people the power to challenge critical situations and the courage to bounce back in adverse conditions (Snyder, 2002).

Probationers, living the life of stigmatized and marginalized people, hope plays the key role in transitioning from incarceration to reintegration into society. (Dhami et al., 2007; Siddique et al., 2022). Hope acts as a catalyst that increases the likelihood of individuals' participation in rehabilitative and intervention-based programs focusing on their emotional stability, which

ultimately helps them become healthy, productive, and successful members of society. (Dutra-Thome et al. (2019)

Positive Psychology is one of the less-researched areas in psychology. However, a significant amount of work is currently underway, indicating that much more research is needed. This research should be culture-specific, meaning that the tools, questionnaires, and constructs must be defined in a contextually and culturally relevant manner. Notably, the concept of hope is not fully addressed in many Asian cultures (Ethnologue, 2023). The Herth Hope Index is one tool that has gained popularity and is being translated and validated into various languages, reflecting its widespread acceptance in this field. This scale is

robust in psychometrics when measuring hope across diverse settings. The reliability of the Herth Hope scale when translated into different languages is high, as seen in Spanish ($\alpha = 0.89$) and Mandarin ($\alpha = 0.91$) (Pérez-Fuentes et al., 2020; Wang et al., 2021). However, this scale has not yet been translated into Urdu. This study aims to translate the HHI into Urdu, make it culturally adaptive, and validate the scale in a new population, that is, probationers in Pakistan (Ali & Kamal, 2019).

Theoretical Foundations of Hope

Snyder's (2002) hope theory consists of two fundamental components: goal-directed determination and planning for achieving those goals, referred to as agency and pathways, respectively. The Hope Health Index (HHI) evaluates hope through three dimensions: temporality and future orientation, positive readiness and expectancy, and interconnectedness (Herth, 1991).

Hope in Criminal Justice Contexts

In forensic settings, hope serves as a ladder that plays a crucial role in the lives of probationers participating in any rehabilitation program. Research indicates that probationers who maintain high levels of hope are approximately 30 percent less likely to re-offend. A meta-analysis conducted by Dhami et al. (2007) found that hopeful individuals are more effective at seeking new jobs and easily develop social bonds with others, which in turn reduces the chances of unemployment and recidivism.

In developing countries like Pakistan, probationers face various issues, including limited opportunities to secure reputable or respectable jobs (72%). They also face social stigma and prejudice (62%) (Siddique et al., 2022). As a result, probationers are in a state of helplessness and hopelessness. No study has empirically measured hope in probationers due to the language barrier and the lack of a validated tool in the field (Khan et al., 2018).

Translating tools is challenging because significant effort is required to understand both the language and its cultural meanings, especially in relation to the specific population for which the translated tool will be validated (Herdman et al., 1998). For example, a famous scale named the Beck Hopelessness Scale has been translated into

Urdu. However, Khan et al. (2018) reported that it is very challenging to translate phrases like "The future feels dark to me" into Urdu because some expressions are culturally irrelevant.

Significance

This practical study bridges the cultural gap caused by the language barrier and changes in cultural dynamics, such as individualistic or collectivist cultures. This tool is not already being translated into Urdu, so it contributes to the literature because it has not been validated on probationers yet. This could give a picture of how the dynamics of hope vary across cultures, especially in developing South Asian countries where resources are limited.

The adapted and translated version of HHI helps psychotherapists, sociologists, and social workers, and mainly the probation and parole officers, for the welfare of criminals who have been a marginalized and stigmatized population, and their access to mental health services is limited or scarce (Ali & Kamal, 2019). This translated version could help policymakers in planning and designing the hope-enhancing intervention plan (Dutra-Thomé et al., 2019).

Implication

One of the key implications is that this study aligns with the World Health Organization's 2022 goals, i.e., under the Mental Health Gap Action Program, scales must be adapted in developing countries. The HHI Urdu version could be a mandatory scale to administer once someone is on probation so that their probation officers can help him/her be hopeful and become a productive member who can easily reintegrate into society and not be pushed back into the world of crime by people's harsh attitude.

Objectives of the Study

The study aims to translate the Herth Hope Index into Urdu and validate the translated scale on probationers in forensic settings.

Method

This study was conducted to translate and validate the tool cross-culturally and finally confirm the factor structure in Pakistani probationers. The Herth Hope Index (Dr. Herth) was developed in the English language and has already been translated into more than 15

languages; however, it has not yet been translated into Urdu. This study consisted of three stages: adaptation of the scale, translation of the scale, and validation of the translated scale.

Adaptation of the scale is the first stage in which the expert person is asked about the suitability of the scale in Pakistan. The concept of hope measured through this scale is applicable to collectivist cultures, and the scale is easy to administer to a larger population. A panel of four experts was selected based on their experience in psychology and psychometrics to analyse the scale's usability in this study. This scale was developed in English but needed to be translated because the research's target audience or population would have been probationers, who would face difficulty in grasping the concept in its true essence.

Translation of the Scale

These are the steps followed in the linguistic validation process.

Forward Translation

First, the forward translation of the scale was conducted by two bilingual experts, after obtaining permission from the author of the original scale to translate it into the Urdu language. The bilingual experts involved in forward translation have a basic Psychology background, and they translate the items in a holistic manner rather than doing word-to-word translation. After the two translations, the basics remained the same, like the name/title of the scale, instructions for administration, and scoring procedure. All items were translated into Urdu by considering the overall essence and meaning of the measured construct.

Backward Translation

Once the forward translations were made, the next step is the backward translation, i.e., Urdu into English, to make equilibrium in the translated statements. This statement best represents the meaning of the original items. So, after that, two people who are experts in the English language asked to do the backward translation.

Comparison of the Original version and translated version of the scale

Once the backward translation was done, it was compared with the original English version of the

scale. It highlighted the discrepancy that might be due to different contexts and cultural settings. The translator made a few mistakes, which might be due to a misfit in the Urdu word that the bilingual expert translated. The highlighted mistakes were corrected, and the translated scale was finalised.

Proof Reading

Proofreading is the next step after the experts' backward translation. In this step, a language expert reviews the translated scale to highlight any ambiguities and make it more comprehensive and understandable. After this, the scale is ready for pilot testing.

Pilot Testing

The pilot testing is the last stage of tool translation. It is used to verify the applicability of the scale and identify the errors that can be best seen while administering it to a sample from the original population, i.e., probationers. Through this pilot, we have an idea or estimation of how much time it will require to complete this scale. A sample of 30 probationers was taken from the probation and reclamation department. A formal permission letter was taken from the department and given to the Punjab Probation and Reclamation Department, and they allowed me to collect the data. I have taken the informed consent, including the final translated tool, given to the participants. I asked them to inform me about the ambiguities if they felt an issue with understanding the scale. After finalizing the translated tool, it will be used for future research.

Establishing the Psychometric Properties of the Scale

The sample consisted of 500 probationers, all males.

The inclusion criteria for criminals were as follows:

1. Individuals had been released on probation
2. Meet the criteria of probationers according to section 5
3. Able to read or understand the Urdu language
4. Aged between twenty to forty years.
5. Participants must be psychologically sound and healthy

Exclusion Criteria

Participants were excluded on the basis of following.

1. Individuals with physical disabilities or psychological disorders
2. Under trials criminals
3. Individuals convicted of Violent crimes
4. Individuals sentenced to death or life imprisonment will not be included
4. Illiterate individuals (Not able to read the native language).

After seeking permission from the probation department, data were collected from all over the Punjab (36 districts) via two stages. In stage one, ten districts were selected randomly, and in stage two, probationers were selected from each district depending on the number of total probationers in each district.

Results

Once the data had been collected, descriptive statistics, reliability analysis and confirmatory factor analysis were computed through AMOS.

Procedure

Descriptive Statistics

Descriptive Statistics of the Demographic Characteristics of Probationers (N=500)

Variables	F	(%)	M	SD
Age			37.29	11.54
Marital Status				
Married	370	74.0		
Single	130	26.0		
No. of Children				
0	162	30.3		
1	39	9.6		
2	68	13.6		
3	86	17.2		
4	63	12.6		
5	45	9.0		
6	27	5.4		
7	14	2.8		
9	2	.4		
10	2	.4		
Education				
Illiterate	93	18.6		
Primary	101	20.2		
6-10	235	47.0		
11-12	52	10.4		
13-14	16	3.2		
Above 14	3	.6		
Occupation				
Public/Private Job	244	49.0		
Own Business	255	51.0		
Religion				
Muslim	479	95.8		
Hindu	3	0.6		
Christian	17	3.4		
Family Type				

Nuclear	183	36.6		
Joint	315	63.0		
Relationship				
Father/Mother	4	.8		
Brother/Sister	8	1.6		
Other relatives	14	2.8		
No one	470	94.0		
Probation Duration			7.16	8.83

Note: *f*=frequencies of demographic variables, % = percentage *M*= mean and *SD*= standard deviation

In Table 1, descriptive given in the form of percentages and frequency for categorical variable but for continuous variable data represented in the form of mean and standard deviation. The average age of the participants was 37.29 years (*SD* = 11.54), with 74% identified as married and 26% as single. A significant portion, 30.3%, had no children, while the remaining participants reported one or more children, with only a small fraction having seven or more. Educationally, 47% had completed grades 6–10, 18.6% were

uneducated, and just 0.6% had pursued education beyond grade 14. Nearly half of the participants (49%) were engaged in public or private sector jobs, while 51% were own a business. The majority were Muslim (95.8%), followed by Christians (3.4%) and Hindus (0.6%). Regarding family structure, 63% lived in joint families, while 36.6% were part of nuclear families. 94% indicated no close relationships or personal support, with only a small number receiving support from relatives or siblings. The probation period varied significantly, with an average of 7.16 months (*SD* = 8.83).

Table 2

Reliability of Hope scale in Probationers (N=500)

Variables	K	M	SD	Range		α
				Actual	Potential	
Hope	12	43.61	9.180	12-60	12-60	.86

The value of Alpha is .86, which means scale is highly reliable.

Confirmatory Factor Analysis for Hope Scale

Hope scale has 12 items based on likert scale and in order to find out the factor structure, confirmatory factor analysis was computed through AMOS. The construct of hope is a three-

factor construct, including an inner sense of temporality and future, an inner positive readiness and expectancy, and interconnectedness with self and others. The model fit indices for the evaluated model are shown in Table 3.

Table 3

Fit Indices for Brief Hope Scale for Probationers (N = 500).

Model	χ^2	<i>df</i>	χ^2/df	GFI	CFI	NNFI	RMSEA	SRMR
Model Fit	112.92	51	2.21	.96	.98	.97	.04	.03

Table 3, indicates the fit indices for the confirmatory factor analysis on hope among probationers. The model showed a poor absolute fit as the χ^2 (51) = 112.92, $p < .05$, indicating a disparity between the sample and

population variance-covariance matrices. The chi-square test for absolute model fit is sensitive to sample size and the number of parameters estimated in a structural equation modeling (SEM) framework. Therefore, researchers

commonly use a variety of fit indices to evaluate how well the data aligns with the tested model. For this purpose, indices such as GFI, CFI, NNFI, RMSEA, and SRMR were examined (Hu & Bentler, 1999),

According to the suggested standards (Hair et al., 2010), acceptable model fit criteria include a χ^2/df ratio between 0 and 3, with RMSEA and SRMR values below .08, while CFI, NFI, and GFI values of .90 or higher are considered excellent. In some cases, values between .90 and .80 are deemed acceptable.

The χ^2/df ratio was 2.21 for the tested model, and RMSEA and SRMR values were .04 and .03, respectively. The GFI, CFI, and NFI values improved to .96, .98, and .97, indicating a well-fitting model. In conclusion, the sample and population variance-covariance matrices were invariant.



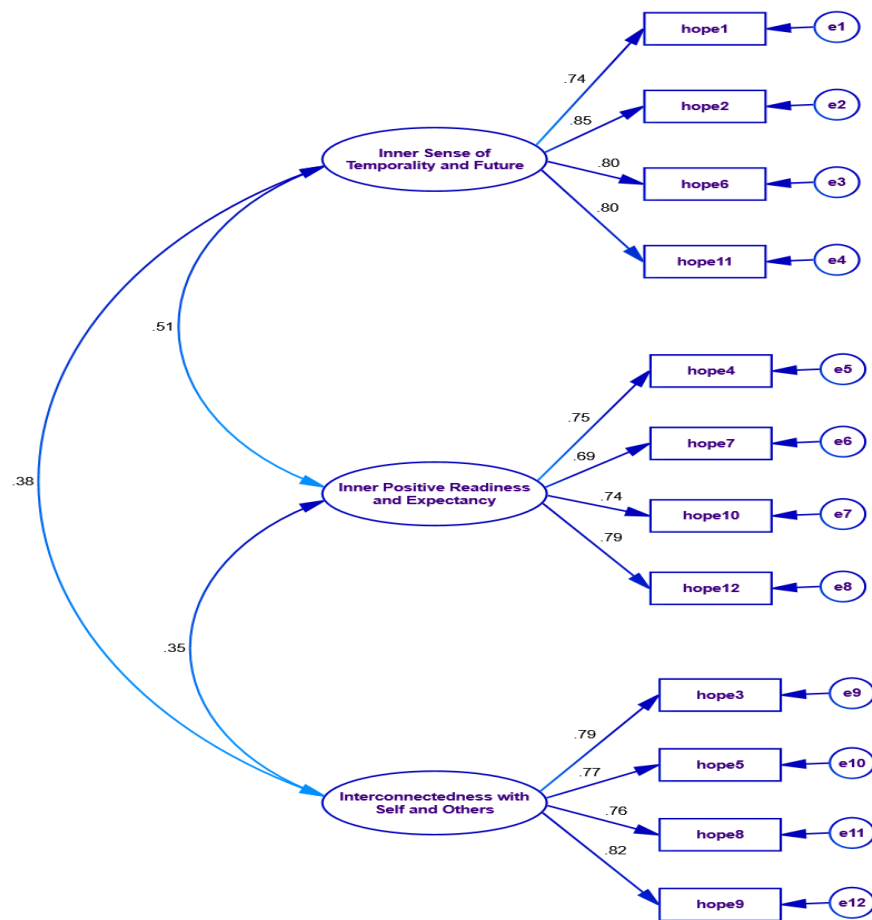


Figure 1
Confirmatory Factor Analysis for Hope Scale

Table 2

Psychometric Evaluation of Confirmatory Factor Analysis of Hope Scale (N=500).

Factors	α	CR	AVE	MSV	λ
Inner Sense of Temporality and Future	0.89	0.88	0.64	0.26	
Hope1					.745
Hope2					.852
Hope6					.801
Hope11					.799
Inner Positive Readiness and Expectancy	0.84	0.83	0.55	0.26	
Hope12					.792
Hope10					.737
Hope7					.688
Hope4					.750
Interconnectedness with Self and Others	0.87	0.86	0.62	0.14	

Hope9	.818
Hope8	.758
Hope5	.773
Hope3	.790

The composite reliability (CR) of the Herth Hope scale is 0.88, which is higher than the threshold, i.e., 0.70 (Hair et al., 2015; Henseler et al., 2016). According to Haire et al. (2010), standardized factor loadings of .70 or greater are considered acceptable, accounting for 50% or more of the variance in the corresponding factors of a measure. The inner sense of temporality and

future, inner positive readiness and expectancy, and interconnectedness with self and others explain 64%, 55%, and 62% of the variance, respectively. At the same time, the composite reliability coefficients ranged from .83 to .89, indicating excellent reliabilities.

Table 3

Fornell-Larcker Criterion for the Factors of Hope Scale for Probationers (N=500).

Factors	K	Inner Sense of Temporality and Future	Inner Positive Readiness and Expectancy	Interconnectedness with Self and Others
Inner Sense of Temporality and Future	4	0.800		
Inner Positive Readiness and Expectancy	4	0.509	0.743	
Interconnectedness with Self and Others	4	0.375	0.347	0.785

Two different methods were used to test the discriminant validity for the hope scale, as suggested by Henseler et al (2016) and Voorhees et al. (2016). The first method involved comparing the square root of average variance extracted (AVE) values for each scale with their respective correlation with all other factors, as per Fornell and Larcker (1981) (refer to Table 3). The second method required the average variance of a factor to be greater than the variance shared with all other factors, which means that the AVE should be greater than the maximum shared variance (MSV), according to Hair et al. (2010) (refer to Table 2). The results showed excellent discriminant validity. The analysis yielded strong validity and reliability estimates, highlighting excellent psychometric properties.

Discussion

The confirmatory factor analysis (CFA) results provide strong evidence for the validity and reliability of the three-factor Hope Scale among probationers. The model fit indices, including $\chi^2/df = 2.21$, RMSEA = 0.04, SRMR = 0.03, CFI = 0.98, and GFI = 0.96, indicate an excellent fit to the data, supporting the hypothesized three-

factor structure (Hair et al., 2010; Hu & Bentler, 1999).

The result of Confirmatory factor analysis showed that hope has a three-factor scale, and the model fit indices supported the three-factor structure while $\chi^2/df = 2.21$, RMSEA = 0.04, SRMR = 0.03, CFI = 0.98, and GFI = 0.96, indicating or supporting the three-factor structure. $\chi^2/df = 2.21$. This value showed the model fits the data, as this value is less than the cutoff score, i.e., 3. The value of the RMSEA is .04, which means your model is a close fit to the data, which means the three-factor structure of the Hope scale is correct and best explains the construct. If the value exceeds 0.10, then the factor structure must be revised.

The value of SRMR (Standardized Root Mean Square Residual) is .03, below the threshold of .08. hope's three-factor structure depicts the relationship between the items and a very minute difference between the actual data and the model. The value of the CFI (Comparative fit index) is above .95, which means that the model improved compared to the null or baseline model, and .98 reflects that this three-structure factor is 98 percent better than the null model.

GFI (Goodness of Fit) is .96, greater than .95 the cutoff score. The model explains 96 percent of the data's pattern. The findings and results clearly show that the three-factor structure of the Hope scale is statistically excellent, and there is no need to change it.

Although the significant chi-square value suggested initial misfit, this statistic is highly sensitive to sample size, and the alternative fit indices confirmed that the model adequately represents the data (Kline, 2016). The composite reliability of the scale is .89, which is greater than the value of .70, the threshold value, indicating that three subscales have strong internal consistency.

The three dimensions or subscales, entitled Inner Sense of Temporality and Future, Inner Positive Readiness and Expectancy, and Interconnectedness with Self and Others, have reliability scores ranging from .83 to .89, which means strong internal consistency. According to Haie et al. (2015), these values are more than 0.70, which is used as a threshold.

According to Fornell and Larcker (1981), the average variance extracted values are higher than .50, and all factor loadings are above .06, which means substantial variance in their respective constructs.

Discriminant validity was confirmed through the Fornell-Larcker criterion, as the square roots of AVEs were greater than inter-factor correlations (Henseler et al., 2016). Additionally, the AVE for each factor surpassed the maximum shared variance (MSV), further supporting distinctiveness among the constructs (Hair et al., 2010). These findings align with previous research on hope as a multidimensional construct (Snyder, 2002) and suggest that the scale is robust for assessing hope in probationer populations. Future studies could explore its predictive validity regarding rehabilitation outcomes.

Conclusion

The research concluded that the Urdu version of the Herth Hope Scale had sound psychometric properties, i.e. reliability of the subscale, composite reliability and validity of the scale. This Urdu version can be used across cultures where Urdu language is native. The valid Urdu Version of the Herth Hope scale is an addition in the literature that can be useful for research that can be done in this country, as language is a barrier

and a major population is not able to understand the English language.

Limitations and Suggestions:

This can be validated on probationers; now, it can be validated on a diverse population to increase its applicability. This will help to conduct more indigenous research in the different domains of Psychology.

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