Adaptations and validation of Hindi happiness scale (HHS) among Indian adolescents and young adults

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Abstract: Culturally appropriate assessment tools to measure happiness among English speaking adolescents and young adults in India are required. The study establishes the reliability and validity of the adapted HHS among English speaking Indian adolescents and young adults aged 12 to 25. Translation and back-translation methods were used by language expert for the items of HHS. Results reveal that five-factor structure of the scale, demonstrating satisfactory internal consistency and concurrent validity with the Positive and Negative Affect Schedule (PANAS). The adapted and validated HHS in English emerges as a reliable instrument for assessing happiness, also contributing to a deeper understanding of subjective well-being in India.

Keywords: Happiness, Adolescents, Young Adults, Hindi Happiness Scale, Validation, Adaptation, Cultural Context, Psychometric Properties

1 | INTRODUCTION

Assessing happiness is fundamental for understanding psychological well-being, particularly among adolescents and adults, as it reflects the overall quality of life and mental health status. However, in India, there exists a notable scarcity of culturally appropriate assessment tools tailored to measure happiness effectively among diverse linguistic and cultural populations. The absence of such tools poses a significant challenge in accurately assessing and addressing the well-being of individuals in this demographic.

Happiness, often defined as a state of subjective well-being characterized by positive emotions and life satisfaction (Diener, Lucas, & Oishi, 2018), is influenced by various cultural factors such as language, societal norms, and values. Therefore, the development and validation of culturally relevant assessment

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tools are imperative to capture the nuanced experience of happiness within specific cultural contexts (Aayush et al., 2015).

In response to this need, this research endeavours to bridge the gap by adapting and validating the Hindi Happiness Scale (HHS) into English for use among Indian adults and adolescents. The HHS, originally developed in Hindi, holds promise as a comprehensive measure of happiness within the Hindi-speaking population. However, its adaptation into English is crucial to ensure its applicability across a broader linguistic spectrum in India.

The primary objective of this study is to refine the HHS for use among Indian adults and adolescents aged 12 to 25 years. By translating and back-translating the scale meticulously, the aim is to preserve the conceptual equivalence of the items while making it linguistically accessible to English-speaking individuals. This adaptation process is vital to maintain the validity and reliability of the scale across different language versions (Beaton et al., 2000).

Furthermore, the validation procedures will assess the psychometric properties of the adapted HHS, including its reliability and validity. It is essential to ensure that the scale accurately measures the construct of happiness and exhibits consistency and stability over time (Tabachnick & Fidell, 2007). Additionally, considering the influence of cultural context on individuals' perception and expression of happiness, the validation process will examine the scale's cultural suitability within the Indian context.

This study's significance lies in its potential to provide a culturally relevant and psychometrically sound instrument for assessing happiness among Indian adults and adolescents. By validating the adapted HHS in English, this research aims to enhance the accuracy and precision of happiness measurement, thereby facilitating a more comprehensive understanding of subjective well-being in India.

In conclusion, the adaptation and validation of the HHS in English among Indian adults and adolescents hold promise for advancing research and interventions aimed at promoting happiness and well-being in diverse cultural contexts.

2 | METHODOLOGY

The study aims to adapt and validate the Hindi Happiness Scale (HHS) for English use among Indian adolescents and young adults. The objectives include establishing the reliability and validity of the English version of the HHS and translating items into English. For the Research design, an exploratory research design will be employed, targeting school and college students aged 12 to 25 years. Data will be collected through an online survey using Google Forms, with a sample size of 70 participants. Statistical analysis was conducted using SPSS version 16. For sample technique and method, Incidental Simple Random Sampling was utilized, with a non-probability sampling method chosen. Inclusion criteria include individuals aged 12 to 25 proficient in English, while exclusive criteria exclude those under 12 or over 25, not currently enrolled in school or college, or unable to understand/respond in English.

Tools Used:

1. Hindi Happiness Scale (HHS) Developed by Kumar and Shrivastava we used. A self-report measure capturing happiness dimensions, validated through translation and adaptation processes. It consists of multiple Likert-scale items assessing aspects like life satisfaction and positive emotions. It demonstrates strong construct validity and reliability.

2. Positive and Negative Affect Schedule (PANAS)Developed by Watson, Clark, and Tellegen, we used. PANAS assesses emotional experiences using Likert-scale items. It demonstrates strong construct validity and reliability.

Procedure

Translation and Adaptation involved bilingual experts translating the Items of HHS into English and back-translating it into Hindi. Discrepancies were resolved, and the English version refined based on feedback. Recruitment utilized social media and school/college networks. Data collection involved administering the final English HHS and PANAS via Google Forms, alongside collecting demographic information.

Statistical Analysis

Descriptive Statistics, factor analysis, and Pearson Correlation were performed using SPSS version 16. These analyses aimed to assess the reliability, validity, and relationships between variables.

Table 1 Demographic information of the participants

variables	Frequency	Percent	Valid percent	Cumulative percent
Gender				
Male	32	45.71	45.71	45.71
Female	38	54.28	54.28	100
Total	70	100	100	
Age				
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	2	2.85	2.85	2.85
16	1	1.42	1.42	4.24
17	1	1.42	1.42	5.51
18	2	2.85	2.85	8.57
19	9	12.85	12.85	21.42
20	18	25.71	25.71	47.14
21	15	21.42	21.42	68.57
22	14	20	20	88.57
23	5	7.14	7.14	95.71
24	2	2.85	2.85	98.57
25	1	1.42	1.42	100
Total	70	100	100	

Construct validity

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy yielded a score of 0.660, indicating moderate adequacy for research's sampling. While this score falls within an acceptable range for factor analysis, it implies some limitations in the data's suitability for extracting underlying constructs. However, Bartlett's Test of Sphericity produced a significant result with a chi-square value of approximately 1.872 and a significance level of 0.000, rejecting the null hypothesis of variables being unrelated. This suggests that the data is appropriate for factor analysis, as significant correlations among variables exist. These findings affirm the construct validity ofresearch, indicating that variables are interconnected and coherent, allowing for the extraction of meaningful constructs.

Reliability and Validity

The results of analysis in Table 3, 4-5 reported the item analysis, validity and reliability of the adapted Hindi Happiness Scale in English among Indian adolescents and young adults. Significant correlations between happiness and its subscales, Positive Affect (PA) and Negative Affect (NA), confirm the validity. Specifically, a strong positive correlation between happiness and PA ($r = 0.437$, $p < 0.01$) suggests that greater happiness aligns with higher levels of positive affect. Conversely, the negative correlation between happiness and NA ($r = -0.473$, $p < 0.01$) indicates that increased happiness corresponds to lower negative affect, further validating the scale.

Table 3 Item total statistics

Items Number	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	147.1429	284.182	0.479	0.933
2.	147.2857	283.251	0.486	0.933
3.	147.5714	280.104	0.48	0.933
4.	147.6714	280.804	0.453	0.933
5.	147.4286	280.104	0.532	0.932
6.	147.4	283.751	0.393	0.933
7.	147.5571	279.439	0.537	0.932
8.	147.5	279.384	0.598	0.932
9.	147.3143	283.871	0.46	0.933
10.	147.2714	285.273	0.391	0.933
11.	147.9429	272.287	0.685	0.931
12.	148.2429	273.346	0.643	0.931
13.	148.2429	270.882	0.689	0.931
14.	148.6143	266.936	0.733	0.93
15.	147.5429	278.513	0.653	0.931
16.	148.1	277.251	0.509	0.933
17.	148.7714	274.295	0.553	0.932
18.	147.9857	277.608	0.5	0.933
19.	148.2286	275.86	0.523	0.932
20.	147.8429	279.323	0.513	0.932
21.	147.7286	274.954	0.753	0.93
22.	147.8714	276.606	0.648	0.931
23.	147.3429	281.968	0.516	0.933
24.	147.5857	280.333	0.446	0.933
25.	147.6	285.2	0.309	0.934
26.	147.2143	287.881	0.242	0.935
27.	147.9429	273.707	0.552	0.932
28.	147.7	284.3	0.362	0.934
29.	147.9857	277.869	0.554	0.932
30.	147.3857	280.53	0.536	0.932
31.	147.3714	284.121	0.386	0.934
32.	147.7571	284.621	0.308	0.934
33.	147.2857	282.903	0.502	0.933
34.	148.0286	280.289	0.388	0.934
35.	147.1714	284.521	0.46	0.933

36.	147.1857	285.806	0.379	0.934
37.	148.1143	276.393	0.509	0.933
38.	148.5	272.717	0.567	0.932

Table 4 Correlation

	Happiness	Positive Affect (PA)	Negative Affect (NA)
Happiness	1	0.437**	-0.473**
PA	0.437**	1	-0.255*
NA	-0.473**	-0.255*	1

The reliability of the scale is demonstrated by a high Cronbach's alpha coefficient of 0.934 (Table 5), indicating internal consistency among the items and reinforcing its reliability for measuring subjective well-being among the targeted population.

Table 5 Reliability statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
0.934	38

3 | DISCUSSION

The findings of this research underscore the importance of assessing subjective well-being, particularly among Indian adolescents and young adults, using culturally adapted scales. The significant correlations observed between happiness and its subscales, Positive Affect (PA) and Negative Affect (NA), indicate the validity of the adapted Hindi Happiness Scale in English. The positive correlation between happiness and PA suggests that individuals experiencing greater happiness tend to exhibit higher levels of positive affect, aligning with previous research on the relationship between happiness and positive emotions. Moreover, the negative correlation between happiness and NA highlights that higher levels of happiness are associated with lower levels of negative affect, which is consistent with theories of subjective well-being. These findings contribute to our understanding of the complex interplay between happiness and affective states, particularly within the cultural context of India.

Furthermore, the high Cronbach's alpha coefficient of 0.934 demonstrates the reliability of the adapted scale, indicating internal consistency among the items. This suggests that the scale consistently measures the intended construct of happiness among Indian adolescents and young adults. The robust validity and reliability of the scale enhance its utility for assessing subjective well-being in this population, providing researchers and practitioners with a valuable tool for understanding and promoting well-being.

4 | CONCLUSION

In conclusion, this research provides empirical support for the validity and reliability of the adapted Hindi Happiness Scale in English speaking Indian adolescents and young adults. The significant correlations between happiness and its subscales, as well as the high Cronbach's alpha coefficient, confirm the scale's utility for assessing subjective well-being in this population.

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