Establishment of a Scale to Measure Migration Proneness of Tribespeople

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

The aim of this study is to develop a scale to measure migration proneness of tribespeople. This study was designed as a quantitative survey research. A total 30 items were generated for measuring migration proneness Likert's summated rating method was followed in the study for scale construction. The relevancy of the items generated was established by judges rating. The scores for each items were summated over all the respondents and relevancy index was calculated. The indices used for the selection of items in the study were an Index of discrimination (t-test), suggested by Edwards (1957) and Item score- total score correlation (Pearson's r), suggested by Anastasi (1961) and Guliford (1971). The statements with high t values, greater than 2.228 and r value greater than 0.4 were selected. Thus 12 statements were selected for the final scale. Split half reliability was used in the present study using odd even method. The correlation co-efficient (r = 0.732) for the half test was obtained. The reliability of the full test was found to be 0.845, which indicates the appreciable reliability of the scale. Care was taken to include items covering the universe of content with respect to the different dimensions of migration proneness in the scale, thereby satisfying the content validity criterion.

Keywords: Migration; tribespeople; agriculture.

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1. INTRODUCTION

"The word migration is derived from the Latin word *migrate;* meaning to change ones residence. It is difficult to define the concept „migration" precisely, since it encompasses many aspects. Migration from one area to another in search of improved livelihoods is a key feature of human history" [1]. "Migration is today a worldwide phenomenon and has become an important issue in our times" [2]. "Human migration is the movement by people from one place to another with the intentions of settling, permanently or temporarily in a new location" [3]. "The movement is often over long distances and from one country to another, but internal migration is also possible; indeed, this is the dominant form globally" [4]. "People may migrate as individuals, in family units or in large groups" (Reips and Buffardi, 2012). "Migration is a permanent or semi-permanent change of residence by an individual or group of people" [5]. It is a phenomenon as old as the history of mankind [6]. Migration has been enormously influential in determining the changes in the socio-cultural landscape of man (Mosse et al. 2002).

"Migration has been both a boon and a curse to humans particularly the tribal people" (Sundari S. 2007). "Migration is necessarily a pre-empt move; it is the survival instinct that drives humans to seek better prospects" [7]. "The possible causes of migration can be identified as economic reasons such as dense population and lack of means of livelihood, facility of transport, attraction of industrial centers, facility of trade and commerce" [1,8-10]. "Social reasons such as access to healthcare, education, housing etc, change in social status, change in occupation status" [11]. "Physical factors such as availability of new land for agriculture purposes, facility of irrigation, availability of forest/ mineral resources and Political factors like wars, society tensions, ethnic/ caste clashes" [12-14]. "Due to many reasons like lack of employment, low job opportunities, marriage, food security, health issues, education etc many tribes people are migrating from their native places to various parts of the country" [15]. Besides this being one of the pioneering research study on migration proneness of tribes people, the results will be of transcended importance in providing the attitude of tribes people towards migration [16-18].

2. METHODOLOGY

2.1 Migration Proneness

It is operationally defined as the attitude of the respondents towards migration. A higher value of migration proneness shows positive attitude of the respondent towards migration. A scale was developed for measuring migration proneness of tribes people.

2.2 Item Generation

The relevant items covering the universe of content in the measurement of migration proneness were collected by reviewing literature and discussion with experts in the concerned field. A total 29 items were generated for measuring migration proneness. These Likert's summated rating method was followed in the study for scale construction.

2.3 Preliminary Screening of the Items by Relevancy Rating

The relevancy of the items generated was established by sending these items to 60 judges. Out of 60 judges, 45 responded within a period of one month. The draft scale was a Likert-type including 7 negative, 22 affirmative totally 29 items. Each item has 4 choices: "Most relevant", "Relevant", "Irrelevant", and "Most irrelevant". In order to convert answers to scores, "Most Relevant" was graded as 4, "Relevant" as 3, "Irrelevant" as 2, and "Most irrelevant" was graded as 1. Negative items were graded in reverse order.

The scores for each items were summated over all the respondents and relevancy index was calculated as:

$$Relevancy\ index = \frac{Total\ score\ obtained\ on\ each\ item}{Maximum\ possible\ score} \times 100$$

2.4 Item Analysis

The most important aspect in item analysis is the determination of the 'index of discrimination' of the items. The indices used for the selection of items in the study were Index of discrimination (t-test), suggested by Edwards (1957) and Item score- total score correlation (Pearson's r), suggested by Anastasi (1961) and Guliford (1971).

2.5 Reliability of the Scale

Split half reliability was used in the present study using odd even method. The scale was administered to 30 respondents belonging to a non-sample group and their responses were collected.

The scores obtained for all the odd items and all the even items were pooled. The two sets of scores thus obtained were correlated using Pearson's product moment correlation. After finding reliability using split half method, reliability of full test was also calculated using the formula:

$$Reliability\ of\ the\ full\ test\ = \frac{2 \times reliability\ of\ the\ \frac{1}{2}\ test}{1\ +\ reliability\ of\ the\ \frac{1}{2}\ test}$$

2.6 Validity of the Scale

"Determination of content validity essentially involves the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain being measured" (Anastasi, 1961). Since the scale was constructed for the quantitative purpose, the scale must have sufficient content validity in order to get a constructive and valid result.

3. RESULTS

3.1 Preliminary Screening of the Items by Relevancy Rating

The relevancy of the items generated was established by sending these items to 60 judges. Out of 60 judges, 45 responded within a period of one month. On screening it was found that out of 45, 15 judges were marked wrongly. Thus 30 responses were considered for relevancy rating. The relevancy index obtained for 29 items is shown in Table 1.

Table 1. Relevancy index of statements

Sl. No.	Statements	Item score	Relevancy index
1	Migration is necessary for living.	106	88.33
2	Migration is necessary for development.	108	90.00
3	Migration will make you self sufficient.	106	88.33
4	If native place provide sufficient income, migration is not necessary.	92	76.66
5	Full potential on work is exhibited only in the migrated place	86	71.66
6	Migration is the only way to improve the living standard	94	78.33
7	Migration can improve the education of your children	100	83.33
8	Migration negatively affect the interpersonal relationship with in the family	104	86.66
9	Migration increases cosmopoliteness	102	85.00
10	Migration is helpful in increasing knowledge on agricultural practices	90	75.00
11	Migration can improve occupational skill	96	80.00
12	Family can be taken care off effectively, even after migration	90	75.00
13	Seasonal migration is more beneficial than long term migration	116	96.66
14	job opportunities are more available through migration	114	95.00
15	Migration can fasten the economic growth of family	104	86.66
16	Migration can modernize migrant and his family	86	71.66
17	Migrants are getting more wages when compare with native place	110	91.66

Sl. No.	Statements	Item score	Relevancy index
18	Whole family migration is essential for better livelihood	92	76.66
19	Migratory places are more developed than native places	96	80.00
20	Settling permanently on migrated place is 1beneficial.	106	88.33
21	Migration on younger age is beneficial	94	78.33
22	Migrants are getting more value in the society	96	80.00
23	Migrants are happier	94	78.33
24	Migration induce bad habits	88	73.33
25	Migration can induce positive changes in personality	98	81.66
26	Migration increases living expenses.	82	68.33
27	Migration may cause health problems	88	73.33
28	Migrants face social discrimination	86	71.66
29	Migrants are less participating in social activities	86	71.66

From the Table 1 it was clear that on statements 2, 13, 14 and 17 have the highest relevancy index which was greater than or equal to 90. Statements 1,3, 7,8,9,11,15,19,20,22,and 25 have high relevancy index greater than 80. For the purpose of scale construction, we didn't consider the statements having a relevancy index less than 80. This shows that respondents believe that migration can enhance their living conditions and for a better living migration is essential. Thus statements 4,5,6,10,12, 16,18,21,23,24,26,27,28 and 29 were not appropriate to measure migration proneness of tribespeople. Thus there were 15 statements retained in the scale which were used for item analysis.

3.2 Item Analysis

The most important aspect in item analysis is the determination of the 'index of discrimination' of the items. The indices used for the selection of items in the study were Index of discrimination (t-test) and Item score- total score correlation (Pearson's r).

From the Table 2, it was clear that statements 1, 7 and 10 have t value greater than or equal to 7. These statements also had high r value. Statements 4, 9 and 15 had very low t and r value which was was not selected for final scale. Thus statements with high t values, greater than 2.228 and r value greater than 0.4 were selected. Thus the scale will measure a positive attitude of respondent towards migration. Higher the score greater the positive attitude towards migration. Thus 12 statements were selected for the final scale.

3.3 Reliability of the Scale

The scale was administered to 30 respondents belonging to a non-sample group and their responses were collected. The scores obtained for all the odd items and all the even items were pooled. The two sets of scores thus obtained were correlated using Pearson's product moment correlation.

The correlation co-efficient (r = 0.732) for the half test was obtained. The reliability of the full test was found to be 0.845, which indicates the appreciable reliability of the scale.

3.4 Validity of the Scale

"Determination of content validity essentially involves the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain being measured" (Anastasi, 1961).

Care was taken to include items covering the universe of content with respect to the different dimensions of migration proneness in the scale, thereby satisfying the content validity criterion [19-22].

Table 2. t value and r value of statements

Sl. No.	Statements	t value	r value
1	Migration is necessary for living.	7.00*	0.9534*
2	Migration is necessary for development.	5.22*	0.8860*
3	Migration will make you self sufficient.	5.22*	0.7060*
4	Migration can improve the education of your children	0.125	0.2111
5	Migration negativ1ely affect the interpersonal relationship with in the family	2.825*	0.6035*
6	Migration increases cosmopoliteness	3.055*	0.7773*
7	Migration can improve occupational skill	7.000*	0.8102*
8	Seasonal migration is more beneficial than long term migration	3.055*	0.5081*
9	Job opportunities are more available through migration	0.797	0.1409
10	Migration can fasten the economic growth of family	7.00*	0.7132*
11	Migrants are getting more wages when compare with native place	2.900*	0.5703*
12	Migratory places are more developed than native places	2.965*	0.5221*
13	Settling permanently on migrated place is beneficial.	4.320*	0.7074*
14	Migrants are getting more value in the society	2.910*	0.5140*
15	Migration can induce positive changes in personality	0.400	0.2563

Table 3. Total score of odd statements in split half method of reliability

Sl.No.	Odd Statements	Total score
1	Migration is necessary for living.	36
3	Migration will make you self sufficient.	34
5	Migration increases cosmopoliteness	40
7	Seasonal migration is more beneficial than long term migration	10
9	Migrants are getting more wages when compare with native place	42
11	Settling permanently on migrated place is beneficial.	22

Table 4. Total score of even statements in split half method of reliability

Sl.No.	Even Statements	Total score
2	Migration is necessary for development.	32
4	Migration negatively affect the interpersonal relationship with in the family	24
6	Migration can improve occupational skill	36
8	Migration can fasten the economic growth of family	38
10	Migratory places are more developed than native places	36
12	Migrants are getting more value in the society	56

4. CONCLUSION AND SUGGESTIONS

In this study it was aimed to develop a reliable and valid scale to measure the migration proneness of tribepeople. The draft scale had 29 items and was applied to 60 judges. As the result of the judges rating 14 items were excluded from the scale and final form with 4 negative, 8 affirmative, totally 12 items were reached. These items were located under esteem, anxiety, confidence and attitude factors. At the end of the study the scale was proved to be a valid and reliable scale measuring migration proneness of tribespeople. The reliability coefficients calculated for the sub-scales were between 0.732 and coefficient for the whole scale was calculated 0.845. It is necessary to reapply reliability and validity studies of this scale with non tribal people and analysis should be compared. Additionally, the correlation between attitudes towards daily job, incentives and modernisation can also be investigated. This result was in agreement with the results of Assan and Kumar [23] and Bhawan and Marg [24] that migration can enhance livelihood of tribespeople and they had a positive attitude towards migration. This scale only measure the migration proneness of tribespoeple alone. So I suggest that the scale can be expanded for measuring migration proneness of non tribespeople also.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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