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Research Paper

Tool Construction: Perceived Stigmatisation and Discrimination Scale

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ABSTRACT

Stigmatization and discrimination are an injustice that individuals go through that has to be eradicated from the society. One path to reduce is to create awareness about the subjective experience of discrimination in day to day life. This study aimed to develop a reliable and valid tool to measure perceived stigmatization and discrimination among individuals which helps to build awareness. The 25 - item Perceived Stigmatization and Discrimination Scale (PSDS) was constructed based on a thorough review of existing literature and expert interviews The scale was administered to a diverse sample of participants (N = 336) to assess its psychometric properties. Exploratory and confirmatory factor analyses were employed to assess the underlying structure of the scale and evaluate its psychometric properties. Results indicate that the PSDS has good internal consistency (Cronbach's α = .940) and construct validity, as evidenced by its correlation and confirmatory factor analysis. The PSDS shows promise as a valuable tool for assessing the subjective experience of stigmatization and discrimination of individuals in various contexts within the Indian culture, with implications for research and interventions aimed at reducing these phenomena.

Keywords: *Stigmatization, Discrimination, Exploratory Factor Analysis, Construct Validity, Confirmatory Factor Analysis, Internal Consistency*

Stigma is a mark separating individuals from one another based on a socially conferred judgment that some persons or groups are tainted and "less than." Stigma often leads to negative beliefs (i.e., stereotypes), the endorsement of those negative stereotypes as real (i.e., prejudice), and a desire to avoid or exclude persons who hold stigmatized statuses (i.e., discrimination, Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Link & Phelan, 2001). Stereotypes refer to perceivers' tendency to associate certain characteristics with certain groups (Leyensetal.,1994). Prejudice is defined as generalized negative affect toward members of an outgroup. (Devine, 1989; Dovidio, Brigham, Johnson & Gaertner, 1996).

Individuals today go through discrimination on daily basis based on their caste, religion, age, gender, sexuality, socioeconomic status, religion, region, language, community, physical appearance, race, medical and psychiatric illness, ethnic groups, etc. The caste system has existed in some form in India for at least 3,000 years. It is a social hierarchy

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passed down through families, and it can dictate the professions a person can work in as well as aspects of their social lives, including whom they can marry. While the caste system originally was for Hindus, nearly all Indians today identify with a caste, regardless of their religion (Neha Sagal, 2021).

Everyone as human beings are social beings too and thus each of us carry a social identity within ourselves which best defines us to other people. For example, we quote ourselves as an Indian, Hindu, Malyali all based on our belongingness to a group with whom we share common traits. It may serve individuals and groups to identify self in relation to their respective social groups within a given social system. It is healthy, productive, positive and promising (Jose & Maheshwari, 2012).

However, self and social group perceptions with non-dominant identities situate them in non-dominant and inequitable social positions wherein perceptions and experiences of such identity are likely to generate disabling (Jose & Maheshwari, 2012).

Individuals who are social group or caste oriented, are likely to acquire better level of knowledge about their groups, perceive their groups as important and favorable to their wellbeing and display serious commitment to groups, are considered to have high level of ethnic identity (Phinney, 1991). And those who have strong ethnic identity and also belong to a societal level dominant group may exhibit prejudice and have stigmatized view on minority group. And thus, discrimination becomes the behavior and becoming discriminated will become the experience.

Regardless of how much individuals experience prejudice and discrimination, the subjective perception of how it affects us or the awareness about being stigmatized or discriminated differs from person to person.

The perception of discrimination can be explained by two components: judgment based on social identity or group belongingness and the judgment of injustice or not deserving the treatment that is received (Major et al., 2002). A person is more likely to perceive themselves as a victim of discrimination when he feels that he has been treated unfairly because of his social identity (Dover et al., 2015; Major & Dover, 2016). Social identity refers to the part of the self that arises from belonging to social groups, with attachment and emotional value that are linked to such belongingness (Scheepers & Ellemers, 2019; Tajfel, 1969). The degree to which an individual feels discriminated from the society depends upon how much he/she has a sense of belongingness to a particular group.

The reality of discrimination and prejudice towards a particular society or individual may not be in congruence with the person who is experiencing the same. Some may not even know that he/she has a prejudiced thought about a particular group of people. This lack of awareness about their own beliefs about a group can be because of their observational learning from their parents or primary care givers, immediate environment's behavior or thoughts about that particular group.

Discrimination and prejudice can be learned via behavior through: 1) Acts of discrimination are evoked by observing discrimination (evoking behavior) and 2) prejudice is reinforced in society by observing discrimination (social learning). The former spreads rapidly as behavior-to-behavior contagion, while the latter spreads slowly through social learning (Takona et al., 2023). Dr. Byrnes explains, "children begin developing attitudes about

various groups in society as early as ages three or four. Initially such attitudes are quite flexible. However, as children grow older such attitudes become more difficult to change". For example, in Tamil Nadu, discrimination and stigmatization towards women is highly from observational learning. A son treats his mother the way his father treats her. If he sees his father treating his mother in an unfair way in the society, the child learns to treat her in the same way and all in his future he generalizes this behavior towards all women and especially with his romantic relationship. But the literal awareness of him treating women in an unfair manner is absent because of early childhood learning. The observational learning that is happening in the childhood has great impact and also many researches support the statement. The suggests that "prejudice does not come from children's awareness of differences among people, but from their perception of negative attitudes about those differences" (Youth Service Activity Guide, 1999).

Prejudice comes into reality through the behavior of the people. This behavior is known as discrimination. The effect of discrimination on the individual will differ based on the awareness of being discriminated or being stereotyped based on belongingness to a particular group. This belongingness can be both conscious (direct) and unconscious (indirect).

But the real question is the individual aware of being discriminated in all forms? One can fight against the unfair treatment towards them only when he/she knows that he/she is being treated unfairly or not treated like everyone else. There is a European commission whose sole purpose is to raise awareness of protections against discrimination on grounds of racial or ethnic origin, religion or belief, disability, age, gender or sexual orientation. Most Indian women do not perceive widespread discrimination against women in India. Roughly a quarter of Indians (23%) say there is "a lot of discrimination" against women in India today. (Respondents were given two options; they could either say there is a lot of discrimination against women, or there is not a lot of discrimination.).

Even seemingly minor signs of Dalit resistance have resulted in brutal retaliation by the dominant castes such as a Dalit boy's wrist being chopped off because he was wearing a watch; another was killed as he had a song on (social reformer) B.R. Ambedkar as his ringtone.

REVIEW OF LITERATURE

Experience of discrimination in Tamil Nadu

A survey conducted by Tamil Nadu Untouchability Eradication center has found several types of discrimination faced by Panchayat presidents belonging to schedule caste communities. Through the survey it was found that not even chairs were given to panchayat president in 22 or 386 panchayats surveyed. Samuvel Raj reported that it was shocking to find that dalit panchayat presidents were not allowed to hoist the flag during the 75th independence celeberation.

From the survey, the discrimination experienced by dalit panchayat presidents are as follows:

- Not permitted to hoist national flags in R-Day and I-Day Name boards without the name of dalit panchayat chief
- Not permitted to sit on designated panchayat president chair
- Unable to sit in panchayat office

- No access to panchayat office keys
- Non-dalits skip the grama sabha meetings chaired by dalit panchayats.
- Vice panchayat president demanding separate office (unwilling to sit with panchayat dalit chief)
- Unable to access documents of the panchayat
- Vice presidents (non-dalits) not cooperating
- Government officials showing discriminations
- Dalit panchayat chiefs subjected to assault and intimidation and caste discrimination
- Discrimination faced by woman dalit panchayat chiefs
- Disrespected/ill-treated
- Denying exchange of documents
- Dalit panchayat chief facing lack of cooperation to function and discharge their duty

The survey titled 'Caste Discrimination in Schools' revealed that students in approximately 13 districts fostered a sense of caste pride and engaged in discussions centered around caste. Additionally, the TNUEF put forth recommendations and presented them to the Chief Minister. Madurai, listed second, exhibited instances of caste discrimination in its rural areas and within its schools. Based on the survey's findings, incidents of caste conflicts among students were reported to the school authorities in more than 25 schools (refer to table 2). In Theni, students encountered discrimination while commuting to schools via bus. In an effort to prompt immediate action, the TNUEF implored the government to implement its proposed solutions within a month. The members of the organization issued a warning that should no action be taken, they would disclose the names of the schools involved.

Discrimination and stress

Participants who believed that their interaction partner held prejudiced attitudes reported greater concern and more threat emotions before the interaction, and more stress after the interaction, and showed greater cardiovascular response than did participants who believed that their partner had egalitarian attitudes. Studies shows that merely anticipating prejudice leads to both psychological and cardiovascular stress response. Several experiments have demonstrated that exposure to prejudice- related stimuli in the laboratory is related to increased physiological stress responses, often indexed by blood pressure (BP). Researchers found that Black women who imagined themselves in, and gave a speech about, a discrimination scenario had more pronounced and prolonged systolic blood pressure and diastolic blood pressure increases c Despite the stress, the majority of adults who report encountering discrimination (59 percent) perceive that they have effectively managed or excelled in handling it and any subsequent alterations or predicaments.

Comparatively, younger adults are less inclined than older generations to assert that they have successfully coped with discrimination. Sixty-one percent of baby boomers and 86 percent of mature individuals affirm that they have managed quite well or very well in the face of experiencing discrimination and its associated changes or problems, in contrast to approximately half of younger adults (51 percent of millennials and 53 percent of Generation Xers) who express the same sentiment.

Among adults who identify as LGBT, 40 percent assert that they have capably handled the experience of discrimination and any ensuing changes or problems, while 60 percent of non-LGBT adults express a similar viewpoint.

The presence of emotional support appears to augment individuals' perception of their ability to cope with discrimination. In total, 65 percent of adults who report experiencing discrimination and indicate that they received emotional support affirm that they managed quite well or very well, in comparison to 37 percent of those who report lacking emotional support.

Disparities among racial and ethnic groups also demonstrate that larger proportions of those who report experiencing discrimination and indicate receiving emotional support affirm that they coped quite well or very well, in contrast to those who report lacking support. Among White individuals, 69 percent of those who report experiencing discrimination and indicate having emotional support assert that they coped quite well or very well, compared to 36 percent of those who report lacking emotional support (Blacks: 63 percent vs. 30 percent; Hispanics: 54 percent vs. 38 percent) compared with White women or Black women in the control group.

Experience of discrimination as an individual

Discrimination is linked to unfavorable mental and physical health consequences (Williams & Mohammed, 2009). The detrimental effects of discriminatory encounters are likely to arise from various processes. These encounters become more evident when discrimination is repeatedly experienced, resulting in heightened depressive symptoms, compromised physical well-being, and increased prevalence of chronic diseases, potentially due to the activation of stress response systems or alterations in health-related behaviors (Adam et al., 2015; Fuller-Rowell, Doan, & Eccles, 2012). In fact, exposure to racial/ethnic discrimination is perceived as traumatic and stressful, leading to heightened anxiety, feelings of hopelessness and helplessness, and an increase in depressive symptoms (Armstead et al., 1989; Bullock & Houston, 1987; Clark et al., 1999; Fernando, 1984; Torres & Vallejo, 2015).

Stressors resulting from experiences of discrimination can also lead to physical exhaustion, premature onset of illness, and mortality (Andersen, Kiecolt-Glaser, & Glaser, 1994; Cacioppo, 1994; S. Cohen & Herbert, 1996; Herd, 1991; Seeman et al., 2004). For instance, instances of racism are associated with higher blood pressure levels among African Americans throughout their lifespan (Armstead et al., 1989; Center for Disease Control and Prevention, 2015; Krieger, 1990). These heightened blood pressure levels are believed to be one of the mechanisms that explain the differences in longevity between racial groups.

The overall literature review suggests that there are significant effects on the discriminated people because of the perceived discrimination on them. Specifically, people born in lower social class and even more a women are going through highly stigmatized life. The level of depression, emotional stress, quality of life is significantly low compared to the people of less discriminatory life. Summarizing, atleast more than 47% of people are of being discriminated in day to day life in some way or the other based on race, age, gender orientation and sexual orientation. People experiencing stigmatization and discrimination experience high levels of stress which reflects on physiological and psychological wellbeing. People low in social class in the society go through conflict relation and thus reduced quality of community life.

MATERIALS AND METHODS

Objective

- To examine the perceived discrimination and stigmatization of Tamil Nadu Population based on social class and gender using a self-report measure
- To create a standardized tool for measurement of perceived discrimination and stigmatization based on gender and social class and assess the quality of the tool.

Sample size

Generally, most scholars recommend a sample size of at least 300 (McCrosky & Young, 1979; Henson & Roberts, 2006; Pett et al., 2003; Worthington & Whittaker, 2006).

Recommendations range from a sample size of 50 (Barrett & Kline, 1981)–400 (Aleamoni, 1976). Comrey and Lee (1992) provided one guide: 50 (very poor), 100 (poor), 200 (fair), 300 (good), 500 (very good), and 1000 (excellent). Guadagnoli and Velicer (1988) and other methodologists argue that item ratios are more relevant than the previously mentioned sample size defense logics. Gorsuch (1983) and others suggested following lower minimum ratios of participants to items (5:1 or 10:1) Therefore, based on previous note by authors, the research commences to use the ratio participants to items as 5:1. The number of samples used in the tool construction process was 336 where number of females were 184 and number of males were 152.

A 5-point Likert scale was used for the questionnaire.

Sampling method

The universe of the population is the people whose native is Tamil Nadu. The researcher adopted the convenient sampling method to collect the data from the respondents. Convenient sampling is a qualitative method where the researcher will collect the data based on their accessibility and availability. The age criteria of the sample frame are above 18 years. The exclusion criteria for the sample frame is that the individual should not be diagnosed with psychotic mental disorders while attending the questionnaire.

Procedure:

Determining number of questions

Methodologists recommend using two-to-three times as many items than one expects to be on the final scale. The number questions formed after interview and by theoretical and empirical review consists of 49 questions at the beginning stage before factor analysis was conducted. After conducting factor analysis, the number of questions was reduced to 25 questions.

Verifying the factorability of the data

Inspection of the correlation matrix, Bartlett's test of sphericity, and Kaiser-Meyer-Olkin (KMO) provides information as to whether factor analysis should be applied to data. Bartlett's chi-square should be significant at a probability of .05 or less, and a KMO value of .60 or higher is recommended before proceeding with factor analysis (McCrosky & Young, 1979; Pett et al., 2003; Tabachnick & Fidell, 2007). The KMO test is a measure of sampling adequacy and is used to determine whether the data is suitable for factor analysis. Specifically, it assesses the extent to which the observed variables in your dataset are correlated, making them appropriate for factor analysis. Barlett's test of Sphericity it tests whether the observed variables are unrelated or whether there are significant correlations among them that make factor analysis meaningful.

After conducting KMO and Barlett's test of sphericity, if the results are significant, the researcher will proceed with the factor analysis for further reduction and deletion of items. However, if the results indicate that the data is not suitable for factor analysis (e.g., KMO is too low or Bartlett's test is not significant), researcher will reconsider the measurement instrument, examine the data collection process, or explore alternative statistical techniques.

Analysis of the tool

Factor analysis is a statistical technique that reduces a set of variables by extracting all their commonalities into a smaller number of factors. It can also be called data reduction.

When observing vast numbers of variables, some common patterns emerge, which are known as factors. These serve as an index of all the variables involved and can be utilized for later analysis. Exploratory factor analysis was done in the research. The researcher did not make any assumptions about prior relationships between factors.

Common factor analysis is the method used where the factors are extracted from commonly-occurring variances and do not include the unique variances of all the variables. In other words, those variable (items) that have similar causation/ meaning are combined into one factor.

Exploratory factor analsysis is conducted through SPSS. Principal Axis factor is used to extract the factors from the variable. Correlation matrix contains the Pearson correlation coefficient (r) between two variables. The coefficient measures the strength and direction of the linear relationship between pairs of variables.

Determining number of factors

Communalities were considered to reduce the number of items in the first stage. Communalities is the relationship between the variable and all other variables before rotation. Communalities between 0.25 and 0.4 have been suggested as acceptable cutoff values, with ideal communalities being 0.7 or above (Beaver et al, 2019). Communalities value lesser than 0.5 were removed and again factor analysis was conducted.

Eigenvalue corresponds to a factor and represents the amount of variance in the observed variables that is explained by that factor. Eigenvalues measure the variance accounted for by each factor. The larger the eigenvalue, the more variance explained by a factor. Kaiser (1960) believed that eigenvalues greater than one results in stable dimensions. Based on what Kaiser said, 4 factors were extracted in which the eigenvalue was more than 1.

Rotate factors

Rotation is necessary in order to more clearly identify the scale's factors (or dimensions). It doesn't change the underlying relationships between the variables and the factors; rather, it reorients or rotates the factors in a way that makes them easier to interpret. Oblique and orthogonal are two types of rotation methods available to researchers.In oblique rotation methods (e.g., Promax, Direct Oblimin), the factors are allowed to correlate with each other after rotation. The approach is used when there is a theoretical reason to believe that the factors might be correlated.

It is recommended by researchers to use oblique rotation because it more accurately represents most models in research because it allows factors to correlate. The researcher has used oblimin rotation method to allow correlation of variables with each other.

Retaining and deletion of items

Simple factor structure is often determined based on several pre-established general criteria: factor item loadings at or above the .30–.50 level, no cross-loadings (i.e., significant loadings on more than one factor), no factors with fewer than three items, reliability levels, and theoretical convergence (Clark & Watson, 1995; Costello & Osborne, 2005; DeVellis, 2012; Fabrigar et al., 1999; Gorsuch, 1997; Hair et al., 2010; Kline, 2013; Norris & Lecavalier, 2010; Tabachnick & Fidell, 2007; Tinsley & Tinsley, 1987; Worthington & Whittaker, 2006). It is recommended that each subscale include at least three items in order to capture the true central of each dimension (Clark & Watson, 1995; Kline, 2013; Loevinger, 1957). After rotation of factors, more than 3 variables are loaded in each of the 4 factors and thus the criteria is met.

Reliability and validity test

So based on factor extraction, eigenvalue and oblique rotate factor loading, number of factors and number of items under each dimension will be concluded. After factor analysis, it is a common practice to attach a descriptive name to each common factor once it is extracted and identified. The assigned name is indicative of the predominant concern that each factor addresses.

Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct." Construct is the hypothetical variable that is being measured (Hatcher, 1994). Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. The overall reliability scored obtained for the finalized questions is 0.940.

Composite reliability (sometimes called construct reliability) is calculated by conducting confirmatory factor analysis through Amos software. It is a measure of internal consistency in scale items, much like Cronbach's alpha (Netemeyer, 2003).It can be thought of as being equal to the total amount of true score variance relative to the total scale score variance (Brunner & Süß, 2005). In statistics (classical test theory), average variance extracted (AVE) is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error. AVE should be higher than 0.5. However, the value of 0.4 is acceptable due to the condition that if AVE value is less than 0.5, but composite reliability is higher than 0.6, the convergent validity is acceptable (Fornell and David, 1981). The AVE and convergent validity value of all the factors are explained in chapter 4.

Measure and scoring

The scale is a likert scale with five pointers ranging from "never" to "always" for all the statements. The 5 options were: "never" – 1, "occasionally" – 2, "sometimes" – 3, "often" – 4 and "always" -5. The participants were kept informed about the instructions on how to fill the questionnaire in the google form.

RESULT AND DISCUSSION

The total population frequency and the category of each population with its mean and standard deviation is described in table 1.

Table 1 Descriptive statistics of the population

Population		**N**	**mean**	**SD**
Gender	Male	114	63.29	19.75
	Female	184	59.26	19.99
	Others	8	90.1	21.64
Religion	Hindu	226	60.48	20.10
	Muslim	24	56.54	23.71
	Christian	23	66.26	21.68
	Buddhism	6	72.83	17.12
	Jain	23	69.56	15.38
	Sikh	2	34.50	10.60
	Atheist	2	93.00	18.38
Caste/community	OBC/MBC/BC	181	60.46	20.02
	FC	40	59.70	20.86
	SC/ST	34	76.50	19.34
	OC	51	57.03	18.91

To begin, to test whether factor analysis can be conducted or not, two tests were conducted namely, Kaiser Myer Olkin Test and Barlett's Test of Sphericity. The value obtained in Kaiser Myer Olkin test is 0.937 displayed in table 2 which is considered as marvelous (0.90-1.00) according to Sarmento (2017).

Table 2 KMO and Barlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.937**
Bartlett's Test of Sphericity	Approx. Chi-Square	3894.550
	Df	351
	Sig.	.000

After performing the Kaiser Myer Olkin test and Barlett's Test of Sphericity, the data is considered to be adequate to further conduct exploratory factor analysis.

Communalities are checked to reduce the number of variables before conducting exploratory factor analysis and oblimin rotation. Initially 49 variables were considered to put into factor analysis (refer appendix A). After filtering variables based on communalities which is given in table 3, it was reduced to 26 variables Eigen values greater than 1 are considered for further rotation of factors. The eigen value of the first four factors are greater than one value and thus are retained for loadings.

Table 3 Eigenvalue of factors in SPSS output

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	10.276	41.103	41.103	9.790	39.160	39.160	4.905
2	1.996	7.986	49.088	1.536	6.145	45.305	6.157
3	1.312	5.249	54.337	0.844	3.377	48.682	7.381
4	1.046	4.183	58.520	0.579	2.315	50.997	6.687

Direct oblimin rotation method was used to rotate the factors. Direct oblimin rotation minimizes the sum of the squared factor loadings, which means that it tries to make the factors as simple as possible, while allowing them to be correlated allowing the variables to correlate with each other. Table 4 presents the loading of each variable in one of the four factors.

Table 4 Factor loadings after rotation

	1	2	3	4
VAR0001				0.689
VAR0003				0.769
VAR0004				0.551
VAR0009			0.539	
VAR0010		0.561		
VAR0014				0.301
VAR0017		0.618		
VAR0018	0.370			
VAR0019			0.460	
VAR0023		0.846		
VAR0024		0.601		
VAR0025		0.517		
VAR0030			0.559	
VAR0032			0.402	
VAR0033	0.308			0.350
VAR0034	0.445			
VAR0036	0.444	0.343		
VAR0037	0.399	0.308		
VAR0038		0.483		
VAR0042			0.562	
VAR0043	0.562			
VAR0046			0.520	
VAR0047			0.719	
VAR0048			0.889	
VAR0049			0.765	

To perform confirmatory factor analysis after EFA, the reliability and validity of the scale has to be analyzed. Internal consistency of Cronbach's alpha is one such measure. The result is displayed in table 5. A commonly accepted rule for describing internal consistency using Cronbach's alpha is (Rui Sarmento & Costa, 2017): 0 to 0.49 unacceptable, 0.50 to 0.59 poor, 0.60 to 0.69 questionable, .70 to 0.79 acceptable, 0.80 to 0.89 good and from 0.9 to 1 excellent. Table 8 illustrates the overall internal consistency and the internal consistency of Cronbach's alpha of each factor.

Table 5 Cronbach's alpha reliability value for internal consistency

Factor	Number of items	Cronbach's alpha reliability value	Overall reliability value
1	4	.806	.940
2	8	.860	
3	10	.883	
4	3	.761	

The parameter values of the scale were estimated with the method of principal axis factor and the result is illustrated in table 6. To assess the fit of the model four criteria were used: CFI (comparative fit index), RMSEA (Root Mean Squared Error of Approximation), CMIN/DF (Chi square/ degree of freedom ratio) and AIC (Akaike Information criterion).

Table 6 Fit indices of the CFA model

Chi square	Df	P	CMIN/DF	CFI	RMSEA	PCLOSE	AIC
833.180	269	.00	3.097	.859	.079	.000	995.18

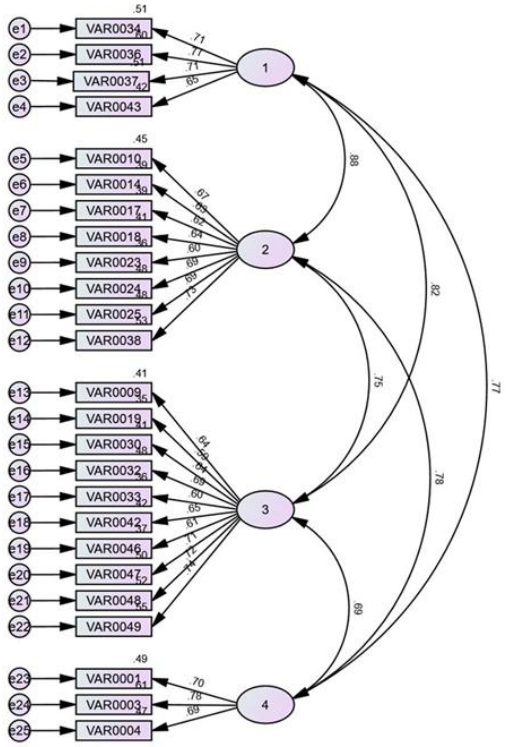
Convergent validity can be explained by Construct Reliability (CR) and Average Variance Extracted (AVE) are illustrated in table 7. Convergent validity is observed when CR (construct reliability) is higher than the AVE, and the AVE is higher than 0.5. However, 0.4 is acceptable due to the condition that composite reliability is higher than 0.6 (Fornell & David, 1981).

Table 7 Reliability and validity of the factors

Factor	Cronbach's alpha	Construct reliability	AVE	Composite reliability
1	.806	.805	.508	.804
2	.860	.860	.435	.859
3	.883	.885	.435	.874
4	.761	.766	.523	850

The results of the confirmatory factor analysis for the finalized 25 item scale are given in figure 1 which is performed in AMOS software using the plugins "Pattern Matrix Modern Builder" created by James Gaskin. The resultant confirmatory factor analysis confirms the model that was extracted by exploratory factor analysis.

Figure 1 The standardized solution of the Confirmatory Factor Analysis of the 25-item scale



To test the internal consistency of the 25-item scale, the correlation between the factors of the scale were computed. Pearson's correlation coefficient was applied. The results of the analsyis are presented in table 8.

Table 8 Pearson correlation between the factors

Factor	1	2	3	4
1	1			
2	0.35	1		
3	0.456	0.447	1	
4	0.446	0.557	0.564	1

The final set of the questionnaire after conducting exploratory factor analysis extracting 4 factors and confirmed by confirmatory factor analysis has 25 items.

Factor 1 has 4 items loaded, factor 2 has 8 items loaded, factor 3 has 10 items loaded and factor 4 has 3 items loaded. The perceived discrimination and stigmatization scale can be referred in appendix B.

The scoring of the scale is based on 5 point Likert scale with no reverse scoring. The score of each options are "never" – 1, "occasionally" – 2, "sometimes" – 3, "often" – 4 and "always" -5. Higher the score obtained by the individual taking the questionnaire, higher is their perceived discrimination and stigmatization in the society. The maximum score of the scale is 125 and the minimum score of the scale is 25.

DISCUSSION

This study focused on the systematic development of a 25-item Perceived Discrimination and Stigmatization Scale tailored to the Indian context, especially the Southern states. The scale aims to raise awareness among individuals about discrimination and stigmatization experienced in daily life, as awareness is crucial for confronting inequality. Unlike existing Western tools like the Everyday Discrimination Scale by David R. Williams, which may not capture the unique experiential nature of discrimination in India, this new scale accounts for socio-cultural dimensions like caste, gender, religion, and appearance. Perceived discrimination often leads to low self-esteem and mental distress, with self-esteem largely formed during adolescence. The developed scale underwent both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), resulting in four dimensions with strong internal consistency (overall Cronbach's $\alpha = .940$), construct validity, and composite reliability. Items were drawn from lived experiences and societal behaviors, making the tool grounded in both theory and reality.

Further analyses using ANOVA revealed significant differences in perceived discrimination among gender groups—especially between males and individuals identifying as "other" gender, and similarly between females and the "other" group—highlighting the unique challenges faced by LGBTQ individuals, consistent with minority stress theory. However, no significant difference was found between males and females. Caste-based analysis showed that SC/ST individuals reported significantly higher levels of stigmatization and discrimination compared to OBC, FC, and OC groups, while differences among the latter groups were not statistically significant. Religious categorization found no major differences between Hindus, Muslims, and Christians but showed significantly higher discrimination among minority religions such as Jainism, Buddhism, and Sikhism. These findings stress the importance of context-specific tools in understanding the nuanced, subjective experience of discrimination in India. Though eradicating injustice remains a challenge, creating awareness through such culturally grounded tools is a critical step toward reducing its psychological and societal impact.

CONCLUSION

The Perceived Stigmatization and Discrimination Scale (PSDS) is a 25-item, 5-point Likert tool developed to measure individuals' perception of stigmatization and discrimination. It is culturally relevant to the Indian context, where discrimination based on caste, gender, religion, and socioeconomic status is widespread. Such discrimination negatively affects mental health, often resulting in distress, depression, and anxiety. Studies on Dalits and women show higher psychological distress due to systemic biases. PSDS provides a structured method to assess these experiences and design targeted interventions. The tool helps understand the individual's internalized perception of discrimination and its effect on daily life. The study involved both theoretical and empirical inputs, with expert interviews and literature reviews guiding item development. From an initial 49 items, exploratory and confirmatory factor analysis narrowed the tool to 25 items grouped under four factors. The Kaiser-Meyer-Olkin test (0.937) and Bartlett's test ($p < 0.001$) confirmed sample adequacy. Items were selected based on communalities (> 0.5) and eigenvalues (> 1). The final model used principal axis factoring with direct oblimin rotation. Confirmatory factor analysis, conducted via AMOS, supported the factor structure and eliminated cross-loadings. The tool shows high internal consistency ($\alpha = 0.940$), construct reliability, and validity. PSDS is a reliable, culturally relevant scale that aids in stigma reduction strategies and enhances psychological support systems.

25- ITEM PERCEIVED STIGMATIZATION AND DISCRIMINATION SCALE

Read the below statements carefully. For each statement, select the response that best reflects how often you have experienced the situation described. Use a pen or pencil to mark the number corresponding to your chosen response for each statement.

	PERCEIVED STIGMATISATION AND DISCRIMINATION SCALE					
		Never	**Sometimes**	**Occasionally**	**Often**	**Always**
1	I have felt that I deserve unfair behavior towards me					
2	I have been dominated/stereotyped based on the position I hold					
3	I have been dominated by others					
4	I'm not allowed inside sanctum sanctorum/specific places inside the temple/worship areas					
5	I have prepared for possible insults from other people (known/ unknown person)					
6	I have hostility/ bitterness towards some specific group/community					
7	I have experienced heightened physiological arousal in a new environment					
8	I have been unfairly rejected for a job/college seat					
9	I have feeling of mistrust on the society in regards with gender and social class					
10	I have been restricted from participation unfairly just because I'm a male/female or belong to a particular group					
11	Unreasonably, I have experienced chronic illness					
12	I have been forcibly living according to certain norms set by the society in which I belong to					
13	I have prepared for possible insults from other people (known/ unknown person)					
14	My partner/close friend have less favorable impression on me					
15	I have felt like a deviated or exposed person in the society					
16	I have been treated with special attention unreasonably by the society based on gender/social class					
17	I have experienced sympathy towards me that was disproportionate					

	PERCEIVED STIGMATISATION AND DISCRIMINATION SCALE					
		Never	**Sometimes**	**Occasionally**	**Often**	**Always**
18	I'm not allowed inside sanctum sanctorum/specific places inside the temple/worship areas					
19	I have been judged based on my gender					
20	I have been judged based on the community I belong to					
21	I was made fun because I'm a male or female or belong to a particular community					
22	I have been asked unnecessary questions by the authority based on the society I belong to					
23	I have been treated with less courtesy or respect					
24	I have received/ receiving poorer services					
25	I have been unfairly discouraged					

Scoring:

The score of each option is as follows,

"never" – 1, "occasionally" – 2, "sometimes" – 3, "often" – 4 and "always" -5. There is no reverse scoring. The administer has to sum the score of each question to obtain the total score of the scale. Higher the obtained total score, greater the perceived discrimination and stigmatization of the individual. The maximum score of the scale is 125 and the minimum score of the scale is 25.

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Conflict of Interest

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