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Research Article

# Stigma among the Families Engaged in Rag-Picking: Development and Validation of the Stigma Assessment Schedule

**Aishwarya Gautam[1]*, Subhasis Bhadra[2] and Atiq Ahmed[3]**

[1]PhD Research Scholar, Department of Social Work, Central University of Rajasthan, Kishangarh, Rajasthan, India
[2]Associate Professor, [3]Assistant Professor, Department of Social Work, Central University of Rajasthan, Kishangarh, Rajasthan, India
*Corresponding author email id: aishwarya.gautam22@gmail.com

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## ABSTRACT

Rag-pickers, individuals who engage in the collection and sorting of waste materials, face significant social stigmatization due to their occupation. However, there is a lack of standardized measures to assess the extent and impact of stigma experienced by rag-pickers. This study aims to address this gap by developing and validating a comprehensive assessment tool. Extensive literature review, expert consultations, and focused group discussions were conducted to identify key dimensions and indicators of stigma. These findings guided the development of a comprehensive item pool, ensuring content validity and reliability. The development and validation of the Stigma Assessment Schedule provide a valuable contribution to the field of stigma research. The SAS total and subscale scores all had acceptable Cronbach's Alpha, and I-CVI scores were also excellent. The overall findings support the SAS as a psychometrically sound tool. By offering a reliable and comprehensive measurement tool, this study addresses a critical gap in the literature, enabling researchers and practitioners to effectively assess and monitor stigma related to occupation, especially among rag-pickers.

**Keywords:** Rag-pickers, Stigma, Validity, Reliability

## INTRODUCTION

India is currently facing a significant challenge in waste management due to population growth and rapid urbanization. The amount of waste generated in the country is

expected to increase from 62 million tonnes to approximately 150 million tonnes by 2030 (Ministry of Science and Technology, 2020). This surge is driven by factors such as industrialization, rural migration, increased consumer spending, and a shift towards capitalist consumption patterns. Rag-pickers play a crucial role in managing waste effectively in India (Reddy, 2018).

Rag-picking is a widespread informal labor practice found globally, involving individuals who collect and recycle waste from diverse sources, such as landfills, with the aim of selling or repurposing it (Chokhandre and Kashyap, 2017). In developing nations, approximately 15 million people engage in rag-picking (Makhubele et. al., 2019). Despite their significant contributions to environmental and economic sustainability in urban areas, these rag-pickers often receive little attention or acknowledgment (Dias, 2016). Due to the nature of their work, rag-pickers face various health hazards, including exposure to decomposed food waste, sharp objects, and items containing harmful substances like lead and mercury (Schenck and Blaauw, 2011; Stein et. al., 2008).

Rag-pickers in India encounter various types of discrimination due to the absence of legal recognition. Despite their significant societal contributions, their fundamental rights are frequently violated, and their value is overlooked. They often become targets of harassment and persecution by both law enforcement and individuals with criminal intentions, who perceive them as vagrants and thieves (Reddy, 2018). State municipalities in many developing countries prohibit rag-pickers from legally collecting, sorting, and selling waste from garbage dumps, and they are considered to be engaging in theft under national criminal laws (Balarman, 2022).

The lack of recognition has resulted in migrant rag-pickers being ineligible for government assistance programs, as well as facing significant challenges in obtaining essential resources such as ration cards, access to electricity, and water facilities (Gautam and Bhadra, 2023). This has had a detrimental impact on their overall living conditions, as well as their mental and physical well-being (Routh, 2014). In some instances, like in Cairo, regulations were imposed that banned rag-pickers' donkey carts from being on the city streets during daylight hours. Similarly, in Colombia, a disturbing "social cleansing" initiative was carried out by paramilitary forces during the 1980s and 1990s, which targeted waste-pickers and forcibly expelled them from certain neighborhoods. This campaign reached its peak when the bodies of 40 waste-pickers, who had been murdered and their organs harvested, were discovered at a Colombian university (Medina, 2007).

Rag-pickers encounter significant stigma from society and local governments, which is striking considering the invaluable service they provide to urban areas through the informal waste management system. However, societal perceptions of rag-pickers are

generally negative due to outdated associations with their chosen profession. India has made no efforts to enhance the informal waste management system's efficiency, which would provide residents, businesses, and industries with effective means to reduce waste sent to urban landfills (CWG and GIZ, 2011).

Stigma is a complex phenomenon that is experienced and expressed in various subjective ways, influenced by the specific stigmatizing condition and the social position of the individual. Those affected by stigma often face multiple losses, including social status and being discredited in the eyes of others (Cumming and Cumming, 1965). As a result of external reactions and internalized self-perceptions (Crocker, Voekl, Testa, and Major, 1991), stigmatized individuals experience diminished life opportunities, social exclusion, and a perception of inferiority and danger to society (Link et. al., 1989; Jones et. al., 1984; Goffman, 1963). This leads to social exclusion, rejection and isolation, with significant negative impacts on social interactions, employment prospects, emotional well-being, and self-image (Link et. al., 1997; Miles et. al., 1997). Stigma not only affects individuals with stigmatized characteristics but also extends to their family members, close associates, and interactions within their social networks (Angermeyer et. al., 2003). It can have a significant impact on parenting ultimately affecting child development (Gautam and Bhadra, 2022). Stigma operates at multiple levels, including social policies, social media, communities, schools, families, and individuals. Overcoming stigma requires comprehensive efforts that encompass these interconnected spheres, aiming to bring about change and influence the perception of stigma (Hinshaw, 2005).

Stigma encompasses various forms, and for the purposes of this study, it has been categorized into two types: public stigma and self-stigma. Public stigma refers to the endorsement of prejudice and the display of discriminatory behavior by the general population towards individuals. On the other hand, self-stigma involves a transformation of identity that results in the loss of previously held positive self-beliefs. This, in turn, leads to negative consequences such as reduced self-esteem and self-efficacy for the stigmatized individual (Gerlinger et. al., 2013). Other scholarly works describe public stigma as encompassing negative attitudes (prejudice), beliefs (stereotypes), and actions (discrimination) directed towards the stigmatized person. Self-stigma, on the other hand, involves the internalization of these experiences by the individual who faces stigma (Wood et. al., 2014).

## AIMS

To develop a schedule to assess the prevalence of public and self-stigma among people whose primary source of income is rag-picking. Another aim of this study is to establish the psychometric properties of the Stigma Assessment Schedule.

## METHOD

### Design

The design is a four-stage psychometric validation study. In stage one, the SAS was developed through Focused Group Discussions (FGDs) with rag-pickers and a rigorous literature review of stigma studies. Cognitive debriefing interviews were also conducted to assess the comprehension of language, eliminate further stigmatization of the population, and establish effective capture of the subject. In the second stage, the SAS was scrutinized by subject experts. The third stage involved pilot testing of the schedule followed by the administration of psychometric assessments in the fourth stage to establish the validity and reliability of the SAS.

### Participants

For the first stage, data were collected in Jaipur, Rajasthan, from rag-pickers living with their families in settlements consisting of mixed occupational groups. The inclusion criteria for selecting participants for FGDs were: 1) rag-pickers with children below 18 years of age, and 2) engaged in rag-picking for at least a year. In this stage, five FGDs were conducted, each involving 5-8 rag-pickers. The second stage involved the inclusion of seven subject experts from academic as well as non-academic backgrounds who were selected from different but relevant fields of psychology, mental health, and social work with prior experience working with stigmatized populations or rag-pickers. The third stage involved the selection of participants with the inclusion criteria of 1) rag-pickers with children below 18 years of age, and 2) engaged in rag-picking for at least a year. In this stage, 130 participants were included, with 108 females and the rest males. The last stage administered psychometric tests to assess the reliability and validity of the SAS.

### Materials

The researchers developed the Stigma Assessment Schedule (SAS) to assess stigma related to the occupation among rag-pickers. The schedule was developed based on the themes identified through five FGDs to understand the issues faced by rag-pickers in everyday life at home, work, and in the community, which helped in framing the questions for the schedule. A total of 38 rag-pickers participated in FGDs. Based on the issues identified, the researchers developed the SAS, which consists of two subsections – public stigma and self-stigma, with a total of 33 questions in a “yes” or “no” format. For each response indicating the presence of stigma, a score of “1” was assigned, and for other responses, the score was “0”. The questions in the schedule are designed with both direct and reverse coding, depending on whether they indicate

the presence or absence of stigma. Therefore, the score of the schedule ranged between 0 and 33. The higher the score, the higher the stigma among rag-pickers, and vice versa.

**Procedure**

The development of the questions for the Stigma Assessment Schedule involved a systematic and iterative approach. It encompassed a comprehensive literature review, which provided the theoretical guidance to navigate five focus group discussions (FGDs) with rag-pickers. The FGDs were conducted with rag-pickers, allowing for in-depth exploration of their experiences and perspectives related to stigma. Thematic analysis of the FGD data served as a crucial step in identifying key themes and informing the formulation of the initial set of questions. This stage involved building rapport with the rag-pickers, considering the sensitivity of the subject matter. Based on the interactions in the first stage through FGDs and cognitive debriefing, a draft schedule was prepared, which contained a total of 45 questions. These questions were based on the following major themes derived from the FGDs – social isolation, internalized shame, social rejection, experiences of discrimination, disclosure of stigma, and coping strategies. Field testing was an essential part of the development process, as it provided an opportunity to gauge the impact of the questions on the participants and assess the clarity and relevance of the items to the rag-pickers. The researchers paid close attention to participant feedback and concerns, modifying the questions accordingly to mitigate any unintended stigmatization. This iterative process ensured that the stigma assessment schedule evolved and improved over time. Based on the themes identified through discussions, it was determined that stigma could be broadly categorized into two major areas: self-stigma and public stigma. The field testing and categorization yielded 15 items under self-stigma, while the rest were under public stigma. The contents of the schedule were initially framed in English. Cultural factors were also taken into account while selecting the items to ensure cultural appropriateness. The items were translated and back-translated to/from Hindi by the authors, and discrepancies were resolved by consulting the Linguistics Department of the University. The schedule was field-tested twice with a group of 20 rag-pickers in each visit to understand if the questions were unambiguous and were consistent with the objective of the study. The tool was revised based on the field experience and debriefing sessions, leading to the first draft of 33 items in total – 13 under self-stigma and 20 under public stigma. In the second stage, the schedule was revised based on the responses from the field and given to the seven subject experts (two Psychologists, two Mental Health experts, and three Social Workers). The experts were instructed to state their opinion by indicating the degree of relevance of each item to the two domains of stigma using

the following rating scale: 1 for "not relevant", 2 for "somewhat relevant", 3 for "quite relevant," and 4 for "highly relevant." Based on their reviews and recommendations, the statements in the SAS were not reduced but further revised. In the third stage, SAS was administered in the field with 130 rag-pickers living in Jaipur and Ajmer cities of Rajasthan, India. Apart from reporting on the SAS, the participants in this stage were also asked to provide socio-demographic information, including their age, gender, frequency of migration, number of members in the family, education, and monthly family income. The fourth stage involved psychometric assessments for validity and reliability testing of the newly developed SAS. The validity of SAS was determined by means of content validity, and the internal reliability was tested with Cronbach's alpha and inter-item correlation. As an effort to calculate the content validity of the SAS quantitatively, the content validity index (CVI) was measured by determining the degree of relevance ratings provided by subject experts in the second stage. Both item-level CVI (I-CVI) and scale-level CVI (S-CVI) were determined in this stage.

## DATA ANALYSIS

The data were analyzed using SPSS v20. Percentage, mean, standard deviation (SD), and 95% confidence interval (CI) values were computed as applicable. For the content validity task, I-CVI and S-CVI were calculated based on the methods described by Lynn (1986). For each of the SAS items, the I-CVI was measured by dividing the number of experts who rated 3 or 4 (on the 4-point relevance scale) by the total number of experts. The S-CVI was determined by averaging all 33 I-CVI values. For determining the internal consistency of SAS, Cronbach's alpha and inter-item correlation were measured.

## RESULTS

The number of participants with whom the pilot study was conducted ranged between 18-57 years of age, and the majority of them were females (83%). Out of the total participants, 84 belonged to Rajasthan, while the remaining were from different parts of India with around 11% from West Bengal. Only 15% of the participants were literate, and all of them were males, while 100% of the females never went to school. On average, the daily income of rag-pickers was 275 INR.

The mean SAS score for the sample was 20.48 (SD = 5.70). The average age of the participants was around 32 years, and there was a significant difference between age and the impact of stigma ($p = 0.019$). A larger F-value suggests a greater difference between the groups. In this instance, the p-value of 0.019 indicates that there is less than a 2 per cent chance that the observed differences in stigma scores are due to

random variation. This suggests that the differences observed are likely to be meaningful and not simply a result of sampling variability. No gender difference in SAS total score was found, $p = 0.355$, $t = -0.941$, indicating that women ($M = 20.70$, $SD = 5.61$) reported similar levels of stigma to men ($M = 19.33$, $SD = 6.17$). The average number of family members in each family is around six ($M = 5.72$, $SD = 1.81$), while there are three children per family ($M = 2.98$, $SD = 1.49$). Around 69% of the participants were Hindus, while a significant number of Muslims also engaged in rag-picking (30.8%). Although there is no significant difference between the groups ($p = 0.450$, $t = 0.76$). Only those were included in the study who had been engaged in rag-picking for at least a year. The pilot study found that the participants were picking waste for almost 15 years ($M = 15.58$, $SD = 7.72$). Out of the 130 participants, family members of 19% of rag-pickers were engaged in other occupations also. Although, rag-pickers with other members in different occupations ($M = 21.84$) showed a higher impact on SAS than the ones in which rag-picking is the only source of income ($M = 20.15$), there was no significant difference between the groups ($p = 0.081$).

Rag-picking emerged as an intergenerational occupation for 33% of the participants, which means that their parents were also engaged in the same occupation. Regarding the intergenerational occupation and SAS score, participants who started rag-picking from scratch ($M = 19.75$, $SD = 6.41$) had a lower impact than those doing it for generations ($M = 21.95$, $SD = 3.53$), and there was a significant difference between the groups ($p = 0.013$, $t = 2.53$). The participants of the pilot study mainly picked waste from the roadside (80%), while the remaining worked in landfill areas. There was no significant difference between the groups ($p = 0.541$), but participants picking waste from the roadside ($M = 20.65$) had a higher impact of stigma than those picking from landfill areas ($M = 19.77$).

**Reliability**

The Cronbach's alpha value for the 32 item SAS was 0.847 (Table 1) indicating excellent internal consistency (Item 23 was removed in the analysis due to its covariance being 0) (Cronbach, 1951). The two sub-parts of the SAS also underwent reliability check which highlighted high reliability. The Self-Stigma sub-schedule has 13 items and its score is indicated in Table 1 while reliability of Public Stigma with 19 items (one item removed due to 0 covariance) in Table 2.

Inter-item correlation has also been computed to assess the internal consistency of SAS (Table 2). It suggests that the items in the SAS are generally positively correlated, indicating internal consistency. However, there is some variability in the strength of these relationships, with some pairs of items having stronger correlations than others.

**Table 1: SAS with Socio-demographic factors**

| Background Items | Categories | N | % | Mean | SD | Test/ Sig. |
|---|---|---|---|---|---|---|
| Age Group | 18-30 | 62 | 47.7 | 24.08 | 3.81 | F= 3.428 |
| | 31-40 | 44 | 33.8 | 35.86 | 2.49 | p= .019* |
| | 41-50 | 16 | 12.3 | 46.06 | 2.93 | |
| | 51 and above | 8 | 6.2 | 52.86 | 2.10 | |
| Sex | Male | 21 | 16.2 | 19.33 | 6.167 | t= -.941 |
| | Female | 109 | 83.8 | 20.70 | 5.607 | p= .355 |
| Religion | Hindu | 90 | 69.2 | 20.73 | 5.66 | t= .76 |
| | Muslim | 40 | 30.8 | 19.90 | 5.82 | p= .450 |
| Type of Family | Joint | 57 | 43.8 | 20.60 | 5.368 | t= .213 |
| | Nuclear | 73 | 56.2 | 20.38 | 5.978 | p= .831 |
| Members in the same | Yes | 105 | 80.8 | 20.15 | 6.043 | t= -1.776 |
| occupation | No | 25 | 19.2 | 21.84 | 3.727 | p= .081 |
| Members engage in other | Auto Driver | 7 | 5.4 | | | F= .585 |
| occupations | Balloon Seller | 3 | 2.3 | | | p= .674 |
| | Labour Work | 9 | 6.9 | | | |
| | Murti Maker | 6 | 4.6 | | | |
| | Rag-Picker | 105 | 80.8 | | | |
| Engaged from generations | Yes | 43 | 33.1 | 21.95 | 3.525 | t= 2.53 |
| | No | 87 | 66.9 | 19.75 | 6.404 | p= .013* |
| Area of picking waste | Landfill | 26 | 20.0 | 19.77 | 6.772 | t= -.618 |
| | Road-Side | 104 | 80.0 | 20.65 | 5.420 | p= .541 |
| Total children in the family | 0-2 | 52 | 40.0 | 2.98 | 1.49 | F= 2.504 |
| | 3-5 | 70 | 53.8 | | | p= .086 |
| | 6 and above | 8 | 6.2 | | | |
| Total members in a family | 0-5 | 73 | 56.2 | 5.72 | 1.81 | F= .031 |
| | 6-10 | 55 | 42.3 | | | p= .969 |
| | 11 and above | 2 | 1.5 | | | |
| Years of picking waste | 0-10 | 50 | 38.5 | 15.58 | 7.72 | F= 1.864 |
| | 11-20 | 58 | 44.6 | | | p= .139 |
| | 21-30 | 18 | 13.8 | | | |
| | 30 and above | 4 | 3.1 | | | |
| Per day income | 0-200 | 45 | 34.6 | 275.38 | 87.44 | F= 1.281 |
| | 201-400 | 77 | 59.2 | | | p= .281 |
| | 401 and above | 8 | 6.2 | | | |
| SAS Score | Mild Stigma (1-15) | 21 | 16.2 | 20.48 | 5.70 | NA |
| | Moderate Stigma (16-25) | 85 | 65.4 | | | |
| | High Stigma (26 & above) | 24 | 18.5 | | | |

*significant score

**Table 2: Cronbach's Alpha**

| Instrument | Cronbach's Alpha | Items |
|---|---|---|
| Self-Stigma | .836 | 13 |
| Public Stigma | .744 | 19 |
| SAS | .850 | 32 |

SAS= Stigma Assessment Schedule

**Table 3: Inter-item Correlation**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance |
|---|---|---|---|---|---|---|
| Inter-Item Correlations | .147 | -.569 | .867 | 1.436 | -1.523 | .058 |

## Validity

For the content validity task, seven subject experts (two Psychologists, two Mental Health experts and three Social Workers) participated. In this task, the I-CVI values for SAS items were found to be high and ranged from 0.71 to 1.00. Of 33 items in the SAS questionnaire, 25 of them (76%) revealed I-CVI of more than 0.80. The lowest I-CVI (0.71) was found for items 4, 5, 8, 13, 20, 28, 29 and 31. The S-CVI (or S-CVI/Ave) that provides a general measure of content validity of SAS was found to be excellent (0.87) (Yusoff, 2019). Out of the 33 items, 25 had modified kappa values between 0.80 and 1 indicating perfect agreement beyond chance; while the remaining had a value between 0.60 and 0.80 indicating significant agreement (Polit and Beck, 2006).

## Floor and Ceiling Effect

No floor or ceiling effects were identified for the entire schedule. None of the participants scored the highest possible score of 33 in the SAS, and none scored the lowest score of 0. There was no ceiling effect observed for either of the factors. Specifically, 7.69 per cent of the participants scored 13, which is the maximum score in the SS, while none of the participants scored 20, the maximum score in the PS. However, a floor effect was not identified for both factors since none of the participants had the lowest possible score of 0 in the SS and the PS (Smith et. al., 2005).

## DISCUSSION

This paper demonstrates the reliability and validity of the SAS for assessing public and self-stigma related to the occupation among rag-pickers. To assess these aspects, Cronbach's Alpha and Inter-Item Correlations were used for internal consistency, and content validity was considered to validate the schedule. The SAS total score ranged

**Table 4: Content Validity Index, Modified Kappa and Comprehensiveness of Instrument Dimensions**

| Item | I-CVI | pc | k* | Interpretation |
|---|---|---|---|---|
| **Self-Stigma** | | | | |
| S1 | 1.00 | 0.0078 | 1.00 | Excellent |
| S2 | 0.86 | 0.0547 | 0.85 | Excellent |
| S3 | 1.00 | 0.0078 | 1.00 | Excellent |
| S4 | 0.71 | 0.1641 | 0.66 | Good |
| S5 | 0.71 | 0.1641 | 0.66 | Good |
| S6 | 1.00 | 0.0078 | 1.00 | Excellent |
| S7 | 1.00 | 0.0078 | 1.00 | Excellent |
| S8 | 0.71 | 0.1641 | 0.66 | Good |
| S9 | 0.86 | 0.0547 | 0.85 | Excellent |
| S10 | 1.00 | 0.0078 | 1.00 | Excellent |
| S11 | 1.00 | 0.0078 | 1.00 | Excellent |
| S12 | 0.86 | 0.0547 | 0.85 | Excellent |
| S13 | 0.71 | 0.1641 | 0.66 | Good |
| **Public Stigma** | | | | |
| P1 | 1.00 | 0.0078 | 1.00 | Excellent |
| P2 | 1.00 | 0.0078 | 1.00 | Excellent |
| P3 | 0.86 | 0.0547 | 0.85 | Excellent |
| P4 | 0.86 | 0.0547 | 0.85 | Excellent |
| P5 | 0.86 | 0.0547 | 0.85 | Excellent |
| P6 | 0.86 | 0.0547 | 0.85 | Excellent |
| P7 | 0.71 | 0.1641 | 0.66 | Good |
| P8 | 0.86 | 0.0547 | 0.85 | Excellent |
| P9 | 1.00 | 0.0078 | 1.00 | Excellent |
| P10 | 0.86 | 0.0547 | 0.85 | Excellent |
| P11 | 0.86 | 0.0547 | 0.85 | Excellent |
| P12 | 1.00 | 0.0078 | 1.00 | Excellent |
| P13 | 0.86 | 0.0547 | 0.85 | Excellent |
| P14 | 0.86 | 0.0547 | 0.85 | Excellent |
| P15 | 0.71 | 0.1641 | 0.66 | Good |
| P16 | 0.71 | 0.1641 | 0.66 | Good |
| P17 | 0.86 | 0.0547 | 0.85 | Excellent |
| P18 | 0.71 | 0.1641 | 0.66 | Good |
| P19 | 1.00 | 0.0078 | 1.00 | Excellent |
| P20 | 1.00 | 0.0078 | 1.00 | Excellent |
| **S-CVI/Ave** | 0.87 | 0.0642 | 0.86 | Excellent |

I-CVI= Inter-item Content Validity Index; k*= modified kappa; pc= probability of chance agreement

**Table 6: Responses on items of SAS**

| Items | Response towards Stigma (%) | Response against Stigma (%) | Mean | Std. Deviation |
|---|---|---|---|---|
| S1 | 48.5 | 51.5 | .48 | .502 |
| S2 | 24.6 | 75.4 | .25 | .432 |
| S3 | 79.2 | 20.8 | .79 | .407 |
| S4 | 80 | 20 | .80 | .402 |
| S5 | 36.2 | 63.8 | .36 | .482 |
| S6# | 80.8 | 19.2 | .19 | .396 |
| S7 | 76.9 | 23.1 | .77 | .423 |
| S8 | 95.4 | 4.6 | .95 | .211 |
| S9 | 83.1 | 36.9 | .63 | .484 |
| S10 | 76.9 | 23.1 | .77 | .423 |
| S11 | 46.9 | 53.1 | .47 | .501 |
| S12# | 19.2 | 80.8 | .81 | .396 |
| S13 | 93.8 | 6.2 | .94 | .241 |
| P1 | 26.9 | 73.1 | .27 | .445 |
| P2 | 93.8 | 6.2 | .94 | .241 |
| P3 | 35.4 | 64.6 | .35 | .480 |
| P4 | 54.6 | 45.4 | .55 | .500 |
| P5 | 48.5 | 51.5 | .48 | .502 |
| P6 | 56.9 | 43.1 | .57 | .497 |
| P7# | 70.8 | 29.2 | .71 | .457 |
| P8 | 99.2 | 0.8 | .99 | .088 |
| P9 | 98.5 | 1.5 | .98 | .124 |
| P10 | 100 | 0 | 1.00 | .00 |
| P11# | 61.5 | 38.5 | .38 | .488 |
| P12 | 70.8 | 29.2 | .71 | .457 |
| P13 | 83.1 | 16.9 | .83 | .376 |
| P14# | 56.2 | 43.8 | .44 | .498 |
| P15 | 26.9 | 73.1 | .27 | .445 |
| P16# | 61.5 | 38.5 | .38 | .488 |
| P17 | 41.5 | 58.5 | .42 | .495 |
| P18 | 31.5 | 68.5 | .32 | .466 |
| P19# | 16.9 | 83.1 | .83 | .376 |
| P20 | 83.8 | 16.2 | .84 | .369 |

# Items coded in reverse i.e. Yes = 0, No = 1

from 0 to 33, with no participants scoring the highest or lowest scores, indicating no issues with ceiling or floor effects in the SAS total score. Based on the SAS scores, the authors categorized the schedule into four categories: High stigma (26-33), Moderate stigma (16-25), Mild Stigma (1-15), and No stigma (0).

Table 4 shows the distribution of responses on the SAS, indicating "yes" and "no" responses to items depicting stigma and no stigma. The table reveals that item number P10, "Do people of housing societies want you to stay outside their houses?" shows the highest stigma, with 100% of participants agreeing to it. On the other hand, item S2, "Do you think discriminatory behavior by others is justified against you because of the type of work you do?" appears to have the least stigma attached to it (24.6%). The responses suggest that unfair and discriminatory treatment of the rag-pickers was primarily from the municipal corporation (P6, 56.9%), followed by school authorities (P4, 54.6%), government personnel including police (P5, 48.5%), and healthcare professionals (P3, 35.4%).

Only 16.9% of rag-pickers believe that they won't get a house/room for rent (P19) due to their occupation, while 80.8% are positive about providing a better life for their children (S12). A correlation was administered between the scores of the entire schedule and its sub-parts. The analysis in Table 8 shows a positive and strong correlation with each other, and each of them is significantly correlated.

The administration of SAS with the study population revealed that the majority of the participants faced moderate stigma (65.38%). The results show that age had a significant impact on the SAS score, indicating that the stigma score varies with the change in age. Further correlation between the two variables showed a negative relationship, interpreting that an increase in age leads to a decrease in stigma score, and vice versa. Both males and females experienced similar levels of stigma, and hence gender had no relationship with the stigma score. Participants whose other family members were engaged in occupations other than rag-picking showed a higher impact of stigma. The presence of family members in different occupations could contribute to the perception of a social contrast or comparison. Participants whose family members are engaged in more socially accepted or mainstream occupations (e.g., auto-rickshaw driver, casual labor, etc.) feel more stigmatized due to the contrast with their own occupation as rag-pickers. This comparison could potentially intensify the perceived stigma and its impact on the participants.

Participants who come from generations of rag-pickers might face higher levels of stigma, as indicated by their higher SAS scores. This could be due to a perpetuation of negative societal perceptions and biases against the occupation within their family

and community. Participants who started rag-picking from scratch, without a family background in the occupation, may have experienced lower levels of stigma. This suggests that factors such as personal resilience, adaptive coping strategies, or limited exposure to the negative stereotypes associated with rag-picking could contribute to a relatively lower impact of stigma for this group. According to the findings of the schedule, the type of location from where waste is picked may influence the level of stigma experienced. Participants picking waste from roadside locations, which are more visible and accessible to the public, may encounter more stigmatizing attitudes and judgments from others. This could contribute to their higher perceived impact of stigma compared to those working in landfill areas, which might be more secluded or less visible to the public.

## CONCLUSION

The newly developed Stigma Assessment Schedule, known as SAS, has been validated accordingly using a series of validity and reliability analyses. The development and validation of the SAS provide researchers and practitioners with a reliable and valid tool to assess the stigma experienced by rag-pickers. Stigma is the leading cause of exclusion for the rag-pickers. The scale captures the diverse dimensions of stigma and can aid in understanding the impact of stigma on the well-being and social inclusion of rag-pickers. This instrument has the potential to inform interventions, policies, and advocacy efforts aimed at reducing stigma, social exclusion, and improving the lives of rag-pickers. Nevertheless, future studies are welcome to further support the findings obtained from the present study.

From the perspective of social work, this study emphasizes the significance of comprehending and addressing the stigma faced by individuals engaged in rag-picking. Stigma can have harmful consequences for their self-esteem, mental health, and ability to integrate into society. Social workers have a vital role in advocating for the rights and dignity of rag-pickers, increasing awareness about the unique challenges they encounter, and fostering inclusivity and acceptance. It is important to actively challenge negative stereotypes linked to rag-picking and foster a more empathetic and compassionate understanding of this occupation. Effective interventions may involve community education, advocating for supportive policies, and providing essential services like counseling, skills development, and improved access to healthcare for rag-pickers and their families. Collaborative efforts with relevant stakeholders, such as government agencies, non-governmental organizations, and community members, are essential in reducing stigma and enhancing the overall well-being of rag-pickers.

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