

Formulating a Scale Development Process for Structural Stigma in the Perspective of Disabled Employees

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Abstract

Persons with disabilities are valuable assets and are extremely enthusiastic and loyal. These qualities make them an asset to organizations. Still these disabled employees are considered a minority in organization and hence stigmatized due to their fragile nature and limitation of movements at work. Structural Stigma is the type of stigma which provides a base for organization to restrict the disabled employees. This study focuses on designing a scale to assess how structural stigma affects DEs in the workplace. A 30-item scale called the SSDS (Structural Stigma Disability Scale) measures the challenges that DEs encounter in the workplace from the viewpoint of their coworkers. The SSDS provides a thorough analysis of the restrictions DEs face and assesses how structural stigma affects their chances of success. We have collected 27 responses from the DEs affiliated with educational institutes in Khyber-Pakhtunkhwa (Pakistan) and assess their responses using the User Experience Questionnaire (UEQ). The assessment results of UEQ are grouped into Attractiveness, Pragmatic Quality (perspicuity, efficiency, and dependability), and Hedonic Quality (stimulation, originality). The Cronbach Alpha values for each of the dimensions at $p=0.05$, which are given as Attractiveness ($\alpha=0.82$), Perspicuity ($\alpha=0.79$), Efficiency ($\alpha=0.64$), Dependability ($\alpha=0.78$), Stimulation ($\alpha=0.67$), and Novelty ($\alpha=0.92$), hence categorized as "Good" with the attractiveness, pragmatic, and hedonic values as x, y, and z respectively.

Keywords: Persons with Disabilities, Disabled Employees, Structural Stigma, Structural Stigma Disability Scale, User Experience Questionnaire.

Introduction

Stigma has been the cause of distinction and adversity amongst humans over the previous millennia. Usually, stigma includes stereotyping and the victimized group face a lot of issues in the daily routine activities. Those having power and resources take advantage of their position to pin down others being exhibited as different. Stigma created due to *structural, institutional* or *cultural norms* that degrades the self-esteem of targeted individual (Ali, 2013; Major et al. 2017; Sommerland et al. 2020). This implies that stigma not only occurs at the interpersonal or intrapersonal levels but also occurs at the structural levels causing devastation (Major and Schmader, 2018). Structural Stigma or Institutional Stigma is the establishment and legitimization of the stigmatized status by social institutions and systems (Pryor and Reeder, 2011; Pryor et al. 2012). The transactions within a culture and society influence institutions which in turn affects the policies and practices, which limit the prospects of the stigmatized individuals on numerous basis such as racial, ethnic, linguistic, political, body weight, physical appearance, or disability (Dovidio et al.

2017; Hatzenbuehler and Link, 2014; Jetten et al. 2018; Massey and Wagner, 2018; Neuberg and Kenrick, 2018). Disability can be known by different terminology such as impairments, activity limitations, and inability to participate freely which highlights the suffering of individual (with a health condition) in contention with the context and environment (WHO, 2011). Persons with disabilities (PWDs) are a socially devalued group and face barriers in employment (Gignac et al., 2021; Lindsay et al., 2018; Khayat-zadeh-Mahani et al., 2019; Schur et al., 2017). In contrast to other minority groups who encounter obstacles due to sexual orientation, racial differences, or health concerns, people with disabilities are special kind of minority group that presents a variety of difficulties due to their behaviour and perspectives that results in stigma. Consequently, if these disabled individuals get employed, there is still a portrayal of inferiority towards them from co-workers, and even the employers showcase cynical views about their abilities (Beatty et al., 2019; Bonaccio et al., 2019; Stone and Colella, 1996). This indicates the uncertainty covering these individuals or groups where situations devour them and are restricted to unequal chances of prosperity on regular basis (Hatzenbuehler, 2018). The public view becomes an important aspect as the more dominant group demonstrate their power and deform this minority group in order to create authority (Link and Phelan, 2014; Oyserman and Fisher, 2018).

The authority of the dominant group becomes more persuasive thus the institutions and organizations impose distinctive policies and procedures that either ignore or restrict the participation of such minorities (Bos et al. 2013; Pryor and Reeder 2011; Pryor et al. 2012). This leads to categorization and isolation of these disabled individuals or groups and hence resulting in stigmatization (Dwertmann and Boehm, 2016; Jetten et al. 2018). Therefore, existence of stigma at structural levels, creates constraints for certain outcasts such as PWDs in organizations. Equal employment opportunities (EEQ) and the facilitation and accommodation of individuals with disabilities (PWDs) within organizations have received more attention in recent years. The Americans with Disabilities Act (1991) in United States, the Equality for Persons with Disabilities Act (2002) in Germany, The Disability Law (2005) in France, and the Equality Act (2010) in United Kingdom, are few showcase scenarios, which addresses the problems of PWDs. The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2011 emphasized on the fundamental human rights by providing job opportunities, and end discrimination against PWDs. Disability is treated as a stigma in many societies and hence this trend follows them into their workplace which isolates them and results in adversity (Gignac et al., 2021; Lindsay et al., 2018; Khayat-zadeh-Mahani et al., 2019; Schur et al., 2017). This sort of treatment not only places them as a devalued minority but also restricts their chances of prosperity in their organization (Dwertmann and Boehm, 2016; Schur et al., 2005). As a result, individuals with certain disabilities are restricted that creates a barrier and disrupt their chances of prosperity (Lindsay et al., 2019). Thus, PWDs gets impacted with stigma at structural levels. Therefore, it is essential to measure the impact of structural stigma for PWDs and provide. In this study, we developed a scale that focuses on evaluating the structural stigma of PWDs. Our proposed Structural Stigma Disability Scale (SSDS) provides a thorough analysis of the challenges that disabled employees (DEs) confronted. The SSDS evaluates interpersonal and intrapersonal

levels of PWDs and support them in improving their daily life. Therefore, providing a complete set of problems associated with DEs and try to quantify the responses.

Literature Review

Definition and Concepts

Stigma or Stigma Power is a part of many social systems, and demonstrates the continuity of such noxious behaviours (Link and Phelan, 2014). Stigma may occur at interpersonal level, institutional level, or both, results in destructive behaviours (Major and Schmader, 2018). Corrigan et al., (2004) proposed the Structural Stigma that described discrimination in policies, laws, and cultural norms, defy equality and encourage exclusion. The concept is known as Intuitional Stigma, in which means stigmatized status is established and legitimized by social institutions and systems (Pryor and Reeder, 2011; Pryor et al., 2012). The adversity of stigmatization affects the peoples in many ways, the individual possess a distinct trait that projects them as an out-group in society (Major et al., 2017). Injustice becomes a subsequent problem as the unfair treatment inflicts many detritions, resulting in numerous inadequacies (Dovidio et al., 2017). The intoxication becomes a source of adversity for those related to a stigmatized identity and affects them in many ways such as distressed social life, poor physical & mental health, and discrimination (Chaudoir and Fisher, 2018; Link et al., 2018). The structure and policies may restrict these individuals or groups as outcasts, leading to discrimination and stereotype against specific individuals and groups in terms of Racial, Ethnic, Linguistic, Political, Body Weight, Physical Appearance, or Disability (Dovidio et al. 2017; Jetten et al. 2018; Massey and Wagner, 2018; Neuberg and Kenrick, 2018). The business of culture and society influence institutions hence affecting the policies & practices that limit the prospects of the stigmatized individuals (Hatzenbuehler and Link, 2014). Environments that increase the threat of punishment, reduce resource supply, and intensify social constraints result from stigma at the structural levels (Richman and Lattanner, 2014). The uncertainty covering specific individuals where situations devour them and are restricted regularly by unequal chances of prosperity results from such type of stigma (Hatzenbuehler, 2018).

Rationale of a New Scale on Structural Stigma

Structural Stigma is one of a rigid barrier that PWDs face as they are either denied equal employment opportunities or are stigmatized when employed. A scale is required to test this problem whether PWDs face such barriers in organizations. Prior studies conducted on structural stigma have mostly focused on the problems associated with LGB community and their restrictions at organizations or institutions e.g., (Hatzenbuehler et al., 2014; a, b; Hatzenbuehler et al., 2020; Pachankis et al., 2014; Perales and Todd, 2018), but the challenges of other minority groups such as PWDs are being neglected. The scale used by (Hatzenbuehler, 2011) and (Hatzenbuehler et al., 2014, b) are mainly focused on the perspective of LGB community, but that scale is not appropriate for other minority groups such as PWDs. Hence this previous scale can't be used in current scenario.

PWDs in Context of Pakistan

In Pakistan PWDs are a negligible minority and disability is treated as a stigma (Rathore et al., 2011). In 2018, the Persons with Disability Act was implemented in Pakistan. According to this act, PWDs are now entitled to a 2% quota in any organizations with 30 or more employees. According to the statistics proposed in Arsh et al. (2019), only 0.67% of PWDs are employed under the disability quota, which is below 2%. It may be due to the societal unawareness or lack of scientific scale for measuring the exact perspectives. Moreover, under the Penal code of 1860 deployed in Pakistan, the scale that covers the restriction on lesbian, gay, bisexual, transgender, intersex, queer/questioning, asexual (LGBTIQA). Such scale that measure the PWDs including the LGBTIQA are inappropriate to deploy in Pakistan such as Hatzenbuehler et al., (2011). Due to the identified limitations in the existing literature, a new scale is required that can measure the PWDs perspective and suitable for deploying in the countries where LGBTIQA restrictions are existed.

Methods

Scale Development Process

The scale development process identify/standardize the process for scale development. The under-discussion scale was developed via a five step (sequential) process. According to Koopman et al., (2002), Vogel et al., (2009), Bennett and Robinson (2010), Ko et al., (2018) and Su et al., (2020), the scale development process consist of five steps as described in Figure-1.

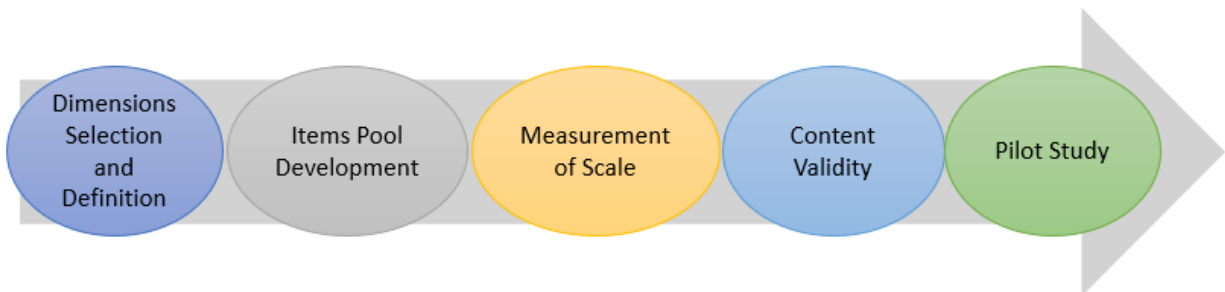


Figure 1. Scale Development Process

(Source: Adapted from Koopman et al., (2002), Vogel et al., (2009), Bennett and Robinson (2010), Ko et al., (2018), Su et al., (2020)).

Dimensions Selection and Definition

The conceptualized definition and the dimensions are adapted from the literature on Structural Stigma. Table 1 provides an overview of the adapted definition of structural stigma, its source and the adapted dimensions of structural stigma and its respective source.

Items Pool Development

Items pool is developed in accordance with the identified dimensions. A total of 30 items were extracted from literature, which includes Concealment (4), Internalization (5), Rejection

Sensitivity (8), Stigma Consciousness (4), Misinformation (3), Prejudice (3), and Discrimination (3), as illustrated in Table 2.

Table-1: Dimension selection and definitions of structural stigma

Concept		Literature Definition	Literature Source
Structural Stigma		“Legitimatization and perpetuation of a stigmatized status by society's institutions and ideological systems”	Pryor and Reeder, (2011)
Levels of Structural Stigma	Intrapersonal Level	<p>Concealment: The acts of individuals in a stigmatized group tries to hide their identities to attain benefits from social relationships. <i>For Example-</i> PWDs with conditions such as psychological or neurological disorders such as depression, anxiety, epilepsy etc.</p> <p>Internalization: Individuals with stigmatized identities when treated unfairly and noxiously they tend to apply the adversity into one’s sense of self. <i>For Example-</i> PWDs are treated inferiorly by their colleagues at workplaces and thus they also come to believe that they are below others hence they suffer.</p> <p>Rejection Sensitivity: The expectations of an individual of a stigmatized group that he/she are not accepted by the authoritative figures in society. <i>For Example-</i> PWDs while inducted into an organization soon realize that providing facilities such as wheelchairs, headphones, hearing or visual aids etc. at workplace doesn’t mean that they are equal members of the organization.</p> <p>Stigma Consciousness: The inclination to avoid stigmatizing behaviors i.e., psychologically, or physically to prevent devastations. <i>For Example-</i> PWDs tend to avoid social gatherings outside of work so they are being pitied or threatened</p>	Pachankis (2007), Newheiser and Barreto (2014), Quinn et al., (2017) Corrigan et al., (2013), Yanos et al., (2015), Morris et al., (2018) Mendoza-Denton et al, (2002), Romero-Canyas et al., (2010) Pinel (1999), Pinel and Pauline (2005)
	Interpersonal Level	<p>Misinformation: Withholding key information or providing wrong information about an individual or group of a stigmatized category. <i>For Example-</i> Organization providing less information regard PWDs with Sensory Impairments (i.e., hearing or visual problems).</p> <p>Prejudice: An unjustified and inappropriate attitude (mostly negative) towards an individual or group of a stigmatized category. <i>For Example-</i> Employees in an</p>	Hatzenbuehler (2018), and Javed et al., (2021)

		<p>organization believe that PWDs should not be hired as they are incapable of performing at work.</p> <p>Discrimination: An action taken (mostly negative) against certain individuals or groups of a stigmatized category. <i>For Example-</i> Organizations tend to avoid selection of PWDs or they provide less development opportunities</p>	
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The adapted dimensions of the scale are summarized in the following diagram.

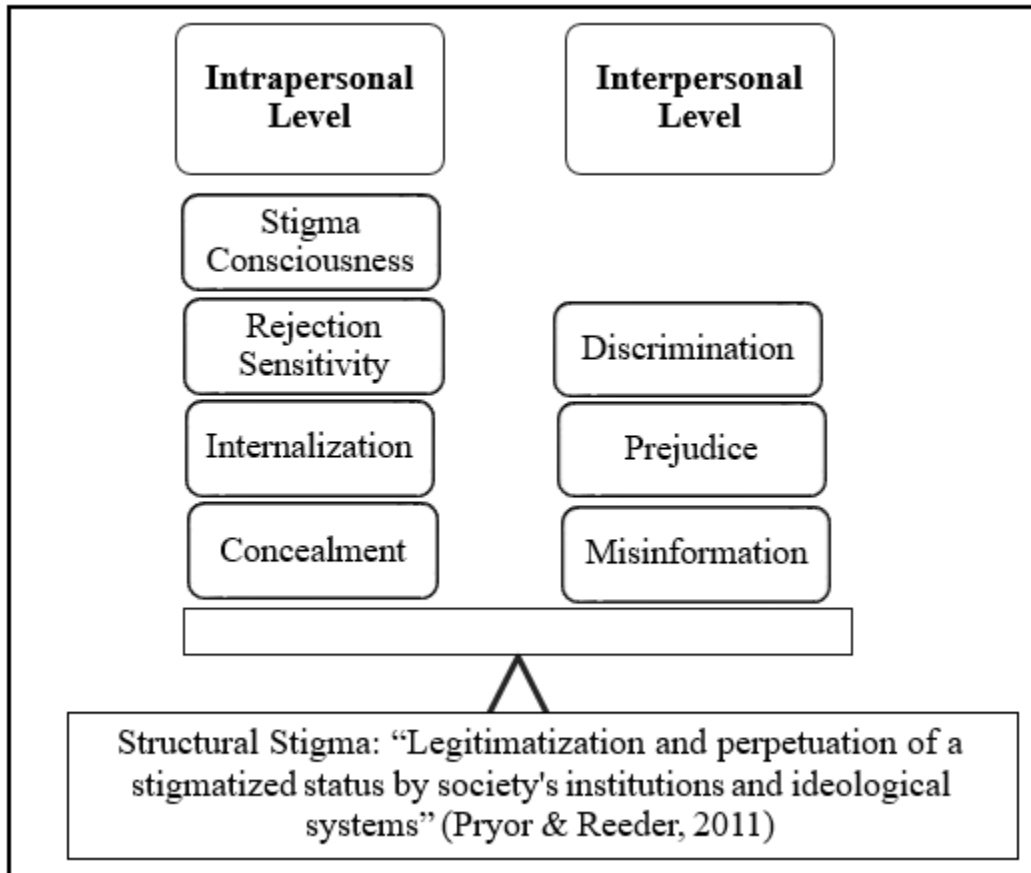


Figure 2: Dimensions of the Scale (study's adaptation)

Table-2: Items Pool

Level	Dimension	Items
Intrapersonal	Concealment	Do you think when PWDs try to hide their identity they are accommodated properly? Is it possible that certain PWDs who hide their identity gets a career development opportunity easily? Do you feel this organization encourage PWDs with hidden identities to disclose? Do PWDs with hidden identities suddenly become open when they meet other individual with similar characteristics in this organization?
	Internalization	Do you think having a disability makes it difficult to understand for others? Do you feel having a disability makes PWDs embarrassed at workplace? In your opinion having a disability makes PWDs inferior to others? Do you think having a disability makes PWDs an easy target? In your opinion PWDs cannot make decisions on their own?
	Rejection Sensitivity	In your opinion PWDs are affected negatively by the denial having a disability in this organization? Do you feel that most of PWDs do not peruse job promotion opportunities due to fear of rejection? Do you think that PWDs expect distinctive response from their colleagues due to their condition? Do you feel PWDs feel threatened when asked to join a party with colleagues? In your opinion PWDs feel pressured when in a social gathering with co-workers? Do you think PWDs expect their colleagues to devalue them? Do you feel PWDs trust their colleagues less? In your opinion PWDs do not expect support from their colleagues?
	Stigma Consciousness	Do you think when PWDs feel devaluation in this organization they anticipate quitting their jobs? Do you feel the negative views against PWDs in this organization leads to divergence from their work? In your opinions when PWDs are criticized by colleagues on their work they feel threatened? Do you think PWDs feel distinctive behaviours of others and so avoid social gatherings in this organization?
Interpersonal	Misinformation	Do you think this organization creates misperceptions regarding PWDs at certain roles? In your opinion this organization deliver incomplete information regarding their disabled employees?

		Do you think this organization hides critical information regarding the treatment of PWDs at workplace?
	Prejudice	Do you think PWDs be allowed to do jobs in organizations like this? Do you feel that PWDs are not capable of handling pressure at workplaces? Do other employees feel that PWDs are not dependable for work?
	Discrimination	Do you think this organization does not provide equal employment opportunities for PWDs? Are PWDs denied chances of promotion frequently in this organization? The policies and practices of this organization neglects the accommodation of PWDs at workplace?

Measurement of Scale

The respondents of the study are the colleagues or supervisors of disabled employees (Des) working in Public Sector educational institutions for the scale and the items are explicitly designed to ask about their point of view to avoid bias. Thus, to measure the scale a 5-point Likert scale is developed ranging from "Almost Always" (1), "Often" (2), "Not Sure" (3), "Seldom" (4), "Never" (5) to measure the items developed. The responses with the higher numbers i.e., "1" represented higher levels of structural stigma while the lower number "5" represents denial of structural stigma.

Content Validity

Content validity confirms that the set of items included in the measure are acceptable and representative of the concept (Sekaran, 2014). The developed items were reviewed by the domain experts, including psychologist and academic professionals. The objective of this key step is to refine the preliminary instrument through the assessment of content validity of each item.

Pilot Study

Pilot testing is done in the following four steps. In the first step planning of the pilot study was done, a comprehensive plan was prepared which comprise of the development of a questionnaire to be used to collect and record data i.e., responses of the respondents that include the quantitative responses on the scale and if needed additional remarks/comments.

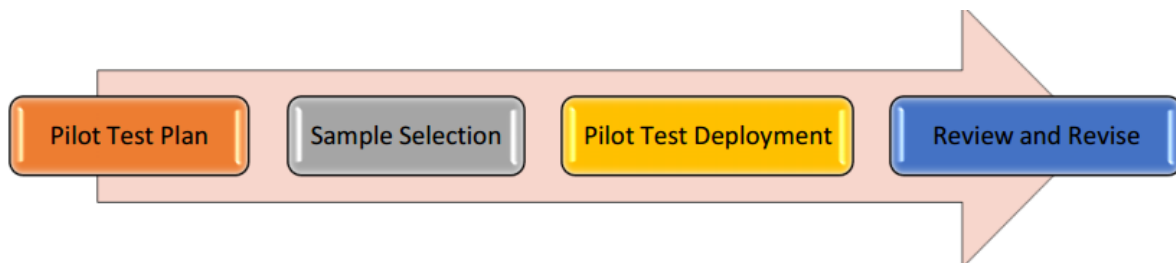


Figure 3. Adopted from Gul and Jamal (2021)

Once it was determined that what and how to record the responses of the pilot test, the next step initiated was to select a pilot sample. The sampling technique used is purposive/judgemental sampling due to the nature of the study.

Evaluation and Results

Population, Sample and Data Collection

The sampling technique used is purposive/judgemental sampling due to the nature of the study. The population selected was the education sector of KP, Pakistan. The sample was derived from the PWDs working on disability quota in the primary, secondary, high-schools, and universities in the province. A questionnaire containing the items of structural stigma was provided to the participants of the pilot study. A total of 277 participants are selected as per calculations of "Calculator.net", and the sample derived for pilot study was 10% of the overall sample which was approximately 27 as per suggestions of Mugenda and Mugenda, (2003).

User Experience Questionnaire (UEQ)

This study is focused on the user experience regarding the items of the SSDS (i.e., the scale is up to the compliance of the target individuals) so User Experience Questionnaire (UEQ) is used to determine the effectiveness of the scale. UEQ determines the strength of each item according to its "Key Product Indicators (KPIs)" containing six dimensions which are attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. Fig. 4 shows the means and variances for the dimensions i.e., (*Attractiveness 1.40 & 0.84, Perspicuity 1.98 & 1.74, Efficiency 1.82 & 1.06, Dependability 1.78 & 1.66, Stimulation 1.83 & 0.87, and Novelty 1.23 & 1.98*) respectively/

The scales of UEQ are further grouped in to Attractiveness, Pragmatic Quality (perspicuity, efficiency, and dependability), and Hedonic Quality (stimulation, originality). Fig. 5 shows three values for Attractiveness (1.40), Pragmatic Quality (1.86), and Hedonic Quality (1.53). Thus, these results indicate that value are good for each of the grouped scales/items discussed above.

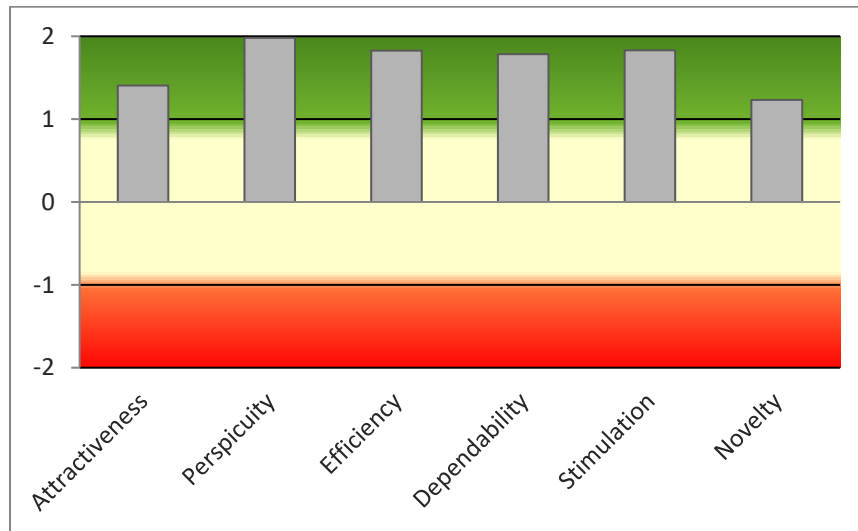


Figure 4. UEQ KPIs (Dimensions)

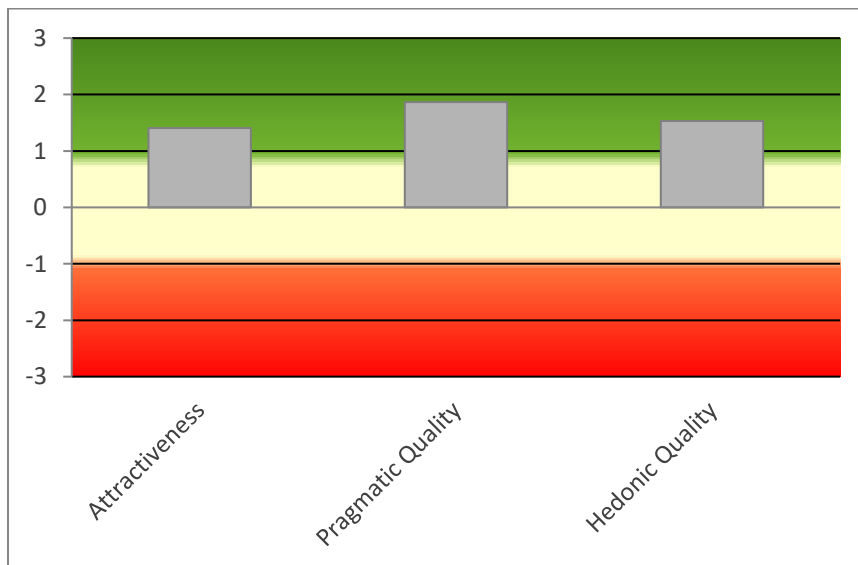


Figure 5. Attractiveness, Pragmatic Quality, & Hedonic Quality

Table 3 shows the Cronbach Alpha values for each of the dimensions at $p=0.05$, which are given as Attractiveness ($\alpha=0.82$), Perspicuity ($\alpha=0.79$), Efficiency ($\alpha=0.64$), Dependability ($\alpha=0.78$), Stimulation ($\alpha=0.67$), and Novelty ($\alpha=0.92$). These values indicate that the Cronbach Alpha values are in the acceptable range i.e., ≥ 0.6 . Additionally, Fig. 5 indicates “Distribution of Answers per item” which are in acceptable range and thus meaning all items of the UEQ are in acceptable range.

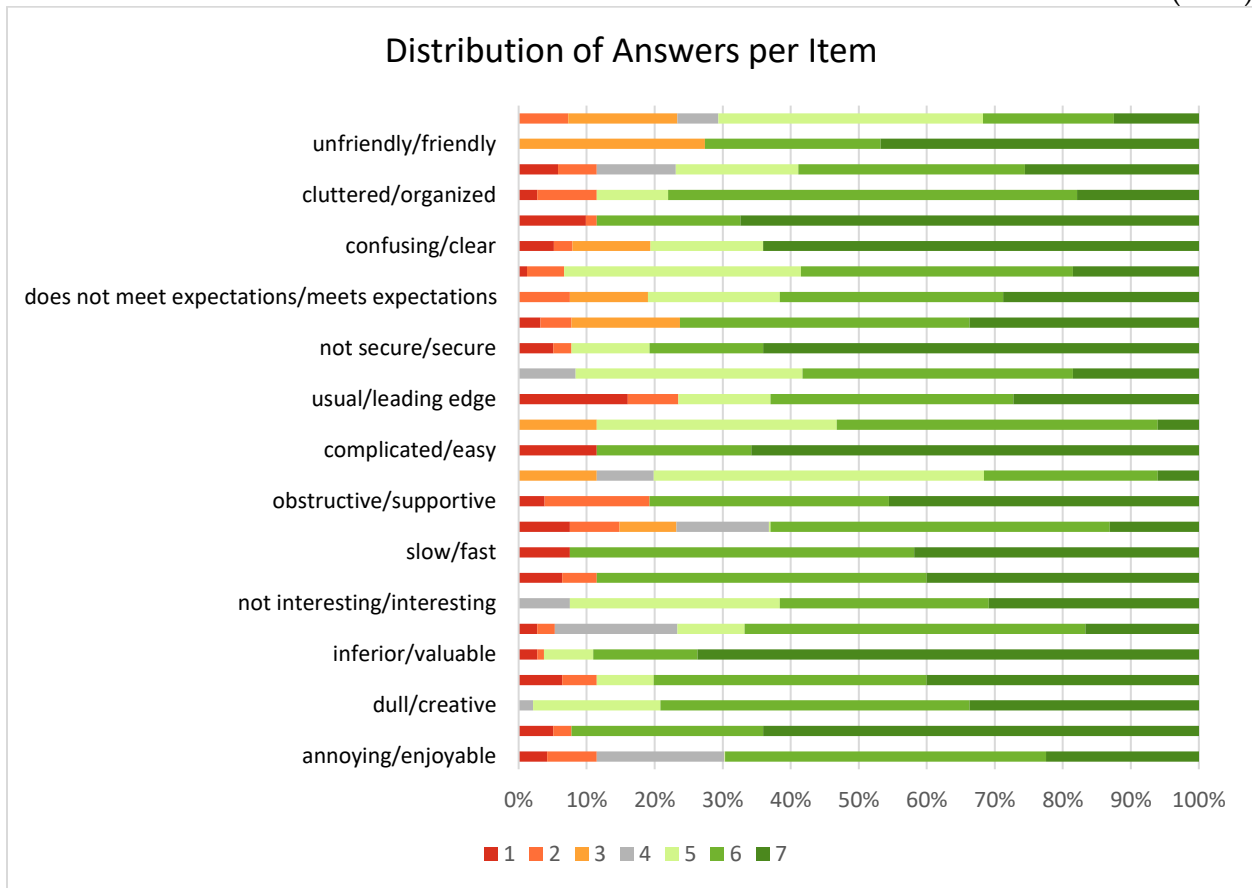


Figure 5. Answer distribution per item

With the availability of a benchmark it is easy to assess whether the users understand the SSDS easily and are able to answer each question of the scale according to the merit. Therefore, highlighting the strengths and weaknesses as a result. Figure 6. Shows that all of dimensions are in or above the “Good” criteria except for Attractiveness which shows the “Above average” criteria. This means that items of the SDSS represent an accurate purview of these questions of structural stigma. Hence, according to the values we assume that the users feel not too much appealed by the attraction of these items but on the other hand the rest of the items are above par and representing the users’ satisfaction.

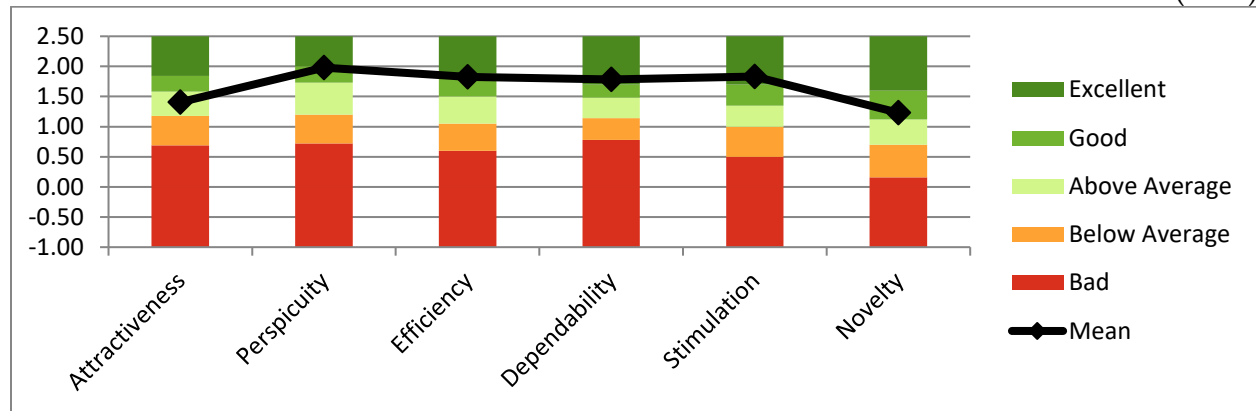


Figure 6. Benchmark

Discussion

We developed Structural Stigma Disability Scale (SSDS) and use UEQ to assess the PWDs experience regarding our proposed solution. The scale developed shows a relatedness in the reliability with the previous developed scale of Structural Stigma in the view of sexually oriented minority groups developed by Hatzenbuehler et al., (2014). The scale uses items that quantifies responses of other individuals (not associated with the minority group) based on their approval or denial of LGBs in the society, and thus was found reliable. The SSDS is unique its own way as it focuses on DEs in workplaces and the problems/barriers they face. The results were found reliable as the Cronbach Alpha values ‘ α ’ were found above 0.7 on each dimension for every item in the scale. Thus, we estimate that the scale is reliable and can be used to collect data for measuring Structural Stigma for DEs in organizations.

Implications of the Study

The current study has many implications in the theoretical context. First, the study provides an extension into the literature of Structural Stigma. Secondly, a scale development process is formulated which helps in developing a scale for Structural Stigma. Thirdly, a scale is developed in the perspective of minority group i.e., DEs, as previous studies have not provided proper attention to the problems associated with these groups. Finally, the study uses UEQ as a tool to assess the reliability of the developed scale.

Limitations and Future Directions

The study has many limitations. Firstly, this study uses a cross-sectional design due to time and resource constraints. So, future studies should use a longitudinal design to test the results. Secondly, this study collects data from the participants from education department of KP. Thus, it is recommended for future researchers to involve participants from other cultures as well to ensure complete illustration. Finally, the study uses UEQ to test the reliability of the scale only using a Pilot study which includes only 27 participants. Therefore, future studies should focus on a complete sample using statistical tools and analysis techniques for scale development such as KMO and Bartlett's test of sphericity, and Exploratory Factor Analysis which in turn provides the complete reliability and validity of the scale.

Conclusion

Disability Stigma is a growing concern as more PWDs are now getting aware of their rights and are focused on getting employed as per the quotas assigned to them. Due to the competitive environment, the people around PWDs try to diminish their integrity and create barriers for them to occupy their positions. The literature proposed a variety of scales for LGBs including PWDs, but such scales are not suitable for the country where the LGBs are not considered due to cultural, religious, or social values. Therefore, we developed SSDS that assess the PWD's interpersonal and intrapersonal skills and develops items based on the sub-dimensions which are highlights problems associated with DEs. The SSDS contains #) items from the 7 sub-dimensions at both Interpersonal and Intrapersonal levels. We used UEQ for assessing the quality of the scale. According to the assessment based on UEQ, the SSDS were categorized as Good, which mean that the scale is reliable and can be used to quantify Structural Stigma for DEs.

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