

People's Perception towards Persons with Disabilities (PwDs): A Cross-Sectional Study

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Received date: August 29, 2022, Manuscript No. IPJPM-22-14541; **Editor assigned date:** August 31, 2022, PreQC No. IPJPM-22-14541 (PQ); **Reviewed date:** September 12, 2022, QC No IPJPM-22-14541; **Revised date:** September 22, 2022, Manuscript No. IPJPM-22-14541 (R); **Published date:** September 29, 2022, DOI: 10.36648/2572-5483.7.9.162

Citation: TVSVGK T (2022) People's Perception towards Persons with Disabilities (PwDs): A Cross-Sectional Study. J Prev Med Vol.7 No.9:162

Abstract

Background

Multiple facets identified over the course of time understand factors that affect the non-differently-abled population's perceptions towards people living with disabilities (PwDs). We aimed to find out the general attitudes of today have functionally privileged section of society and if they changed with time. We hypothesized that with age, higher education and professions that had close exposure with the PwDs, there would be more positive attitudes towards PwDs

Methodology

A randomized cross-sectional based study was conducted using Multidimensional Attitudes Scale (MAS) distributed to 657 people with no disabilities in the form of an online questionnaire.

Variables measured against attitudes were-prior exposure to PwDs, Age, Gender, Education, and Occupation.

The data was analyzed according to the three components of attitude: Affect behaviour and cognition to find a correlation

Results

Behaviour consistently showed a significant across all variables.

Exposure to PwDs forms the most significant correlation in determining a person's attitude (pP value=0.0478 seen between negative attitude and exposure. Among the people with prior exposure, 48% showed positive traits of attitude compared to only 33% for people without prior exposure.

The mean positive affect, behaviour and cognition are highest among healthcare professionals

Conclusion

Our results lay emphasis on how greater exposure to PwDs can facilitate formation of positive attitudes. This is imperative for our progression as humanity since each member of our society deserves to live with dignity and purpose

Keywords: Disability; Attitude; PwDs; Multidimensional Attitudes Scale; Inclusion.

Introduction

Disability is a complex phenomenon that extends beyond physical and medical spheres to the individual's physical, social and political context, reflecting interactions between the features of a person's body and features of the society in which he or she lives. As per the World Health Organisation, disability is an umbrella term, covering impairments, activity limitations, and participation restrictions [1]. Thus, disability is shaped by interactions between a person's health condition or impairment and the various influencing factors in their environment [2].

The Rights of Persons with Disabilities Act 2016 defines Persons with Disability (PwD) as, "people with long term physical, mental, sensory or intellectual impairment, which hinders their complete and effective participation in society equally with others".

The International Classification of Functioning, Disability and health (ICF) perceive disability as a dynamic interaction between health conditions, which form part of the medical model and contextual factors including barriers in attitude and environment which form the social model.

As per the 2011 census, 2.68 crore people in India have some form of disability. Various factors influence and create challenges in the social, professional and personal aspects of a PwD's life. Societal attitudes are one such major factor. Societal attitudes shape the acceptance and inclusion of PwDs-while positive attitudes facilitate inclusion, negative attitudes in the form of indifference and apathy hamper it.

Perceptions that differently abled people are less capable and productive and unfounded cultural and religious beliefs manifest

as negative attitudes that lead to stigmatization and internalized oppression of PwDs.

Study conducted in Uttar Pradesh and Tamil Nadu in 2005 in both households with and without PwDs, around half of those surveyed felt that disability was always or almost always a curse of God. While, almost all households supported the inclusion of PwDs in community activities, qualitative work with the same population showed that such views were not put to practice on occasions like weddings where the presence of a PwD was considered inauspicious. A prospective cross sectional study of the attitudes of a rural Indian community in Southern India towards people with physical disabilities revealed that though overall 82% responders held positive attitudes towards PwDs, but a majority of discriminatory attitudes were held by older members. They did not find any significant relation between gender and employment.

The Sustainable Development Goals (SDGs) adopted by all member States of the United Nations in 2015 aimed to achieve inclusive development for all. Specific reference and inclusion for equitable development of PwDs in social, economic and political spheres prominently figures in the SDGs.

To build support and acceptance from society, it is essential to have knowledge of the attitudes and interactions between PwDs and those living without disabilities. This can help in formulation of appropriate interventions and policies for their benefit and ensure that these goals are accomplished.

Hence, we conducted a prospective cross-sectional study to determine people's perception towards Persons with Disabilities (PwDs).

Methods

Study Settings and participants

A cross sectional study was conducted *via* an online

Our Inclusion criteria was

Individuals above the age of 18 only

Persons without disabilities only

Our exclusion criteria were people who had previously had a disability and since recovered from it.

Study Variables

Public perception of PwDs the dependent variable while prior exposure, age, gender, education and occupation the independent variables.

Study Tools, Procedures and Analysis

The study tool used was the Multidimensional Attitudes Scale (MAS) which assessed the attitudes of persons without disabilities towards PwDs.

The Multidimensional Attitudes Scale (MAS), utilized to analyze attitudes and find qualitative changes that would have occurred over the years, is based on a multidimensional

approach and it considers that attitudes are composed of three dimensions: Affect behaviour and cognition. It was developed at the Bar Ilan University, Israel by Liora Findler, Noa Vilchinsky and Shirli Werner. It was validated by correlating the three components of attitude with the Attitudes towards Disabled Persons Scale (ATDPS), an instrument with proven validity.

We obtained the responses of MAS *via* an online survey and collated the data on MS Excel and analyzed the same by using Structured Query Language (SQL) software and Statistical Package for the Social Sciences (SPSS).

Individuals were asked to rate their responses on a scale of 1 to 5 for each item. The entries were arranged in an ascending order of values for each aspect and the mean, median and standard deviation values were calculated for each variable separately.

All values above median were taken as positive and those below were taken as negative. If an individual reported median values for both negative and positive, it was taken as indifferent.

The value of Cronbach's alpha was calculated for each component of attitude to ascertain the reliability of the responses and the scale being used.

Sample size determination and Participants

The sample size was calculated for 95% confidence interval on a population of adults with no disability. We applied a 5% margin of error to the formula.

Formula: $N = Z^2 (1-P)/D^2$

Wherein,

N=Sample size

Z=1.96 (Cross sectional study)

P=0.5 (Probability that a given person will have negative attitude)

For Calculating D:

Confidence Level: 95%=0.95

D=1-Confidence Level

=0.05

Thus,

$N = 1.96^2 \times 0.5 (1-0.5)/0.05^2$

=384.16

Minimum required sample size is 384.

Sample size studied is 657.

Ethical clearance from the Institutional Ethics Committee, Armed Forces Medical College, and Pune was obtained prior to commencement of study.

Consent of responders was also sought before they filled the form. Responders were explained the aim, nature and background of the study before seeking their consent. Finally, all

data collected from the responders was retained privately for analysis by the authors and not shared with any third party.

Results

The distribution of variables and their components is as shown in Table 1.

	Negative affect (Cronbach's alpha=0.89)		Positive affect (Cronbach's alpha=0.83)		Behaviour (Cronbach's alpha=0.81)		Cognition (Cronbach's alpha=0.95)		Positive attitude	Negative attitude	Indifferent attitude
	Median	SD	Median	SD	Median	SD	Median	SD			
Exposure											
No prior exposure (n=502)	2	1.08	2.5	1.24	2	1.42	3	1.03	155 (31%)	242 (48%)	105 (21%)
Prior Exposure present (n=155)	2	1.07	2.5	1.25	2	1.42	3	1.03	84 (55%)	35 (22%)	36 (23%)
Age (in years)											
18–24 (n=440)	2	1.08	2.5	1.15	2	1.34	3	1.03	144 (33%)	185 (42%)	111 (25%)
25–31 (n=34)	2	1.08	2.5	1.16	2	1.24	3	1.03	16 (44%)	9 (29%)	9 (27%)
32–38 (n=32)	2	1.13	2.5	1.18	2	1.27	3.5	1.14	14 (44%)	10 (31%)	8 (25%)
39–45 (n=53)	2	1.12	2.5	1.14	2	1.37	3	1.18	25 (49%)	22 (40%)	6 (11%)
46–52 (n=58)	2	1.15	2.5	1.09	2	1.37	3	1.06	27 (48%)	28 (47%)	3 (5%)
>52 (n=40)	2	1.08	2.5	1.15	2	1.42	3	1.05	14 (35%)	20 (50%)	6 (15%)
Gender											
Male (n=349)	2	1.07	2.5	1.25	2	1.42	3	1.03	123 (36%)	142 (40%)	84 (24%)
Female (n=308)	2	1.23	2.5	1.26	2	1.42	3	1.03	114 (37%)	136 (44%)	58 (19%)
Educational#											
<=12th standard	2	1.13	2.5	1.31	2	1.49	3	1.26	18	37	24

(n=79)									(24%)	(46%)	(30%)
Undergraduates (n=364)	2	1.15	2.5	1.25	2	1.43	3	1.08	127 (35%)	135 (37%)	102 (28%)
Diploma (n=3)	2	1.33	2.5	1.32	2	1.57	3	1.43	2 (67%)	1 (33%)	0
Honour's degree (n=16)	2	1.24	2.5	1.28	2	1.48	3	1.24	10 (62%)	3 (19%)	3 (19%)
Bachelor's degree (n=52)	2	1.16	2.5	1.26	2	1.45	3	1.13	25 (48%)	21 (40%)	6 (12%)
Master's degree or higher (n=112)	2	1.16	2.5	1.24	2	1.43	3	1.16	59 (53%)	45 (40%)	8 (7%)
Occupation##											
Students (n=419)	2	1.09	2.5	1.24	2	1.41	3	1.11	129 (31%)	182 (43%)	108 (26%)
Banking & Accountancy (n=14)	2	1.53	2.5	1.27	2	1.49	3	1.33	6 (43%)	7 (50%)	1 (7%)
Business (n=9)	2	1.59	2.5	1.29	2	1.54	3	1.42	3 (33%)	5 (56%)	1 (11%)
Healthcare professionals (n=58)	2	1.23	2.5	1.16	2	1.44	3	1.19	36 (62%)	14 (24%)	8 (14%)
Engineering professionals (n=18)	2	1.16	2.5	1.23	2	1.47	3	1.23	9 (50%)	8 (44%)	1 (6%)
Defence personnel (n=18)	2	1.18	2.5	1.29	2	1.46	3	1.34	10 (56%)	7 (38%)	1 (6%)
Government service	2	1.18	2.5	1.29	2	1.45	3	1.17	20 (40%)	22 (44%)	8 (16%)

(n=50)											
Private service (n=15)	2	1.16	2.5	1.28	2	1.47	3	1.23	7 (46%)	4 (27%)	4 (27%)
Lawyers (n=6)	2	1.36	2.5	1.31	2	1.54	3	1.43	2 (33%)	3 (50%)	1 (17%)
Teachers & Research personnel (n=23)	2	1.18	2.5	1.27	2	1.46	3	1.22	8 (35%)	8 (35%)	7 (30%)
Homemakers and others (n=18)	2	1.25	2.5	1.26	2	1.46	3	1.24	11 (61%)	4 (22%)	3 (17%)

31 people did not disclose their educational qualifications

9 people did not disclose their occupation

Table 1: Variable distribution of attitude and its components

Analysis of Variables

Prior exposure to PwDs

55% of people with prior exposure showed positive traits of attitude compared to only 31% for people without exposure prior to the interview who also formed a sizable portion of the total number of people interviewed (76.4%).

48% of people with no prior interaction with PwDs showed signs of negative attitudes towards them, and 21% were indifferent while those with prior exposure showed lower negative attitude (22%).

Age

Age group 18-24 and those >52 years showed comparatively more negative attitudes than positive attitudes.

Age group 39-45 years showed maximum proportionate positive traits followed by the age group 46-52 years. Indifference was same across the age groups while negative attitudes were proportionately lower in the age group 25-31 and 32-38 years.

Gender

Females showed slightly more negative attitude towards PwDs, while males were more indifferent towards them. Overall gender does not seem to play a differentiating role in people's attitudes.

Education

There is significant decrease in negative attitude with higher educational qualifications. There is also significant proportionate decrease in the negative attitude and indifference.

Occupation

The most important figures were recorded from the students. Among the 419 students interviewed, only 31% show positive attitudes. 43% reported negative traits and 26% show indifference towards PwDs.

Healthcare professionals have the most positive and encouraging outlook towards PwDs. Their mean positive affect, behavior and cognition are highest among all professions.

Account & banking, Lawyers and teachers had the maximum negative attitudes amongst all professions.

The relation between occupation and exposure is as shown in Table 2.

Occupation	Number of people exposed to PwDs (in %)
Students (N=419)	74 (17.66%)
Account & Banking (N=14)	1 (7.14%)

Business (N=9)	1 (11.11%)
Healthcare professionals(N=58)	50 (86.2%)
Engineering professionals (N=18)	4 (22.22%)
Government sector services (N=50)	16 (32%)
Private sector service (N=15)	2 (13.33%)
Defense personnel (N=18)	3 (16.67%)
Law (N=6)	0
Teachers and Researchers (N=23)	2 (8.69%)
Homemakers and Others (N=18)	2 (11.11%)

PwD- People with Disabilities

Table 2: Inter-variable analysis: Occupation vs. Exposure

Correlation between two variables compares their variance with respect to each other in a given set of data. A correlation of +1 indicates strong positive correlation (as one variable

increases the other increases too), correlation of -1 indicates strong negative correlation (as one variable increases the other decreases) while correlation 0 means no linear correlation between the variables. Values beyond 0.500 were considered significant (Table 3).

Variable	Negative attitude	Positive attitude
Exposure	r=-0.5834 (p-value=0.0471)	r=0.5431 (p-value=0.0468)
Age	r=-0.1413 (p-value=0.0504)	r=0.1642 (p-value=0.0507)
Education	r=-0.5341 (p-value= 0.0418)	r=0.5632 (p-value= 0.0423)

Table 3: Correlation of Attitude and Variables

The above table helps us to understand that the only significant correlation with attitude is exposure, thus, disproving the original hypothesis in which it was speculated that both age and educational qualifications would have strong correlation with attitude.

Only a significant decline in negative attitudes and a marginal increase in positive ones are seen among people who have been exposed to a greater number of PwDs.

Discussion

In our cross-sectional study of people's perception towards persons with disabilities we demonstrated that behaviour consistently showed a significant dispersion about the mean across all variables, showing that.

There is an inherent bias towards PwDs which may not always be expressed overtly. This is because behaviour is an attribute that can be observed by society in contrast the standard

deviations of affect and cognition are low as they are limited to one's conscience and cannot be scrutinized by society.

For framing of one's attitude in today's world, not just education but also a diversified input from emotional intelligence derived from environmental exposure and shaped by the prevalent social and cultural beliefs is required. As a result if we treat education as a singular variable it would not have a significant correlation with a person's attitude.

However, the one thing that makes the most lasting impact in terms of all three components of attitude-affect, behaviour and cognition—is having real life experiences with PwDs.

Exposure forms the most significant factors in determining whether a person is able to feel and express empathy and understanding (p value=0.0478). This has been objectively concluded by the significant correlation seen between attitude and exposure.

The close interaction of healthcare professionals with PwDs exemplifies this as they have the most positive and highest exposure to PwDs (78.76%), which is the reason they have the

highest mean values across all attributes in comparison to other professions.

The authors strongly feel that a greater number of healthcare professionals should be screened to further strength this viewpoint. Since significant pP values were not obtained for correlations between age, gender and educational qualifications and attitude, it has been shown that there has been a generalized negative attitude independent of the same factors.

From our online literature review we realized that interventions to facilitate inclusion and build empathy have essentially remained the same over the years. Our results led us to conclude that exposure is the most important factor in building empathy.

A survey of teachers' attitudes towards PwDs and inclusive education in schools in Mumbai found that teachers who knew PwDs had more positive attitudes towards them and their inclusion in classrooms. This led the authors to conclude that contact influences the attitude towards PwDs and their inclusion greatly. Even after 14 years, this finding remains consistent in our study.

Furthermore, a 1997 study in Southern India had concluded that attitudes were not affected by gender and educational status, also a significant finding of our study.

Thus, with the understanding of the attitudes, it becomes easier to form constructive policies and create platforms that enable interaction between the general public and PwDs.

This study has limitations in the form of the percentage of students forming the total sample size was relatively more than any other profession as circulation was started online by students and was spread in a centrifugal manner

Additionally, the research tool was not adapted for the Indian scenario, and this could reflect some cultural and language limitations in results.

Reporting and social desirability bias could be introduced due to self-reporting by the participants.

Conclusion

The Multidimensional Attitudes Scale helped us to understand how perceptions towards PwDs have evolved over the years. More importantly, our analysis of various components such as exposure, age, gender, education and occupation that affect attitude have enabled us to identify areas that must be modified to facilitate positive attitudes.

Our results lay emphasis on how greater exposure to PwDs can facilitate formation of positive attitudes. This can be done by encouraging their inclusion in schools, work environments. A shift in our education guidelines towards value based education and interaction with a wide and diverse peer group would promote acceptance.

With measures being taken to improve lives of PwDs, further studies conducted in this field could aim to compare p-values with this study to see if there has been objective shift in attitude in future. This will help keep track of the progress we make as a society to become all inclusive.

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