



Research article

Attitudes and empathy of youth towards physically disabled persons

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ABSTRACT

The present study aimed to investigate the attitude and empathy of youth towards physically disabled persons. This study followed a quantitative paradigm. The sample comprised of 100 participants (Male = 50; Female = 50) who were under the age range of 18–25 years. Purposive sampling was taken to gather the data. Attitudes Towards Disabled Persons (ATDP) Scale and the Toronto Empathy Questionnaire were administered on the participants. All the responses were entered on the SPSS software which was analysed through descriptive statistics, t-test, and Pearson's correlation. Findings of this study showed that both males and females had negative attitude towards physically disabled person. Furthermore, males and females were equally empathetic towards physically disabled person. Consequently, there were no gender differences in the attitude and empathy of youth towards physically disabled persons. Also, significant and positive correlation was seen between the two constructs, i.e., attitude and empathy. These results indicated a need of destigmatization about disability especially physical disability in the society.

1. Introduction

Disability is described as a physical or a mental health condition which hampers an individual's capacity to carry out day-to-day activities. As per WHO, it is estimated that the aggregate amount of persons with disabilities has already exceeded one billion (WHO, 2011). In India, as per the 2011 Census, there are about 2.68 Crore people who are 'disabled' which is approximately 2.21% of the whole population (Department of Empowerment of Persons with Disabilities, 2016; Verma et al., 2016). The condition of differently abled people, especially in developing countries like India, is distressing. Regardless the laws and protection provided by government and its agencies, there is an immense stigma associated with disability, and differently abled persons are still seen as dependent persons and are even denied of their basic human rights, including education, employment and movability (Janardhana and Naidu, 2011). Sometimes, the families of disabled person deny that their family member is differently abled because of the fear of losing social status and reputation in society (Janardhana et al., 2015). Basically, disability itself has become a 'sin' or 'taboo' in the Indian society. Further, there aren't even proper laws which allow disabled people to property rights. The social attitudes of citizens of the country have led to policies by policy makers which aren't favorable to the disabled section of the population.

It is a well-known that attitude has intertwined into the fabric of our daily lives and has become a vital element in the field of social psychology. Renowned social psychologist, Gordon Allport, had dubbed attitude as 'the primary building stone in the edifice of social psychology' (Allport, 1954). Whereas, empathy is referred to as an emotional response to the perceived predicament of other person. It is viewed as the ability to experience similar emotions as that of the other person. However, it is crucial to note that empathy is the genesis that leads to attitude change. This change has become a necessity in our society especially towards certain individuals, groups or communities and thus, the present paper focuses one such group, that is, physically disabled persons. The aforementioned persons are viewed with negative attitude and apathy. In one research, the attitudes of pre-service teachers of Jordan and UAE towards persons with disabilities were explored. The findings exhibited negative attitudes of teachers towards disabled persons (Alghazo et al., 2003).

Therefore, the current paper provides the perception of youth in terms of attitude and empathy towards physically disabled people. Thus, the present research is imperative for the destigmatization of the affected group which is still experiencing exclusion (Morris, 1991) and is vulnerable in the society. Also, the need for modifications in the national policies for persons with disabilities (PWD) laid by the government of India is emphasized.

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1.1. Attitude

The word 'Attitude' has been derived from the Italian word 'Attitudine' which means 'Attitude, or Aptness', but this word was originally adapted from the Latin word 'Aptus' which means 'fit, or posture'. Attitude has multiple meanings, but in general, it has an orientation towards actions, or responses. Allport (1935) has defined attitude as, "a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence on the individual's response to all objects and situations to which it is related". In the world of social psychology, attitude is used to predict the action of persons. Attitude is divergent from human behavior; this means, as stated by Leon Festinger (1954) that the individual behavior is hardly affected by their changing attitude. Further, attitude can be positive, negative or neutral. For instance, a person may believe that disabled individuals have low intelligence (negative attitude), or a person who practices the art of meditation is healthy (positive attitude).

Furthermore, it has three core dimensions which accumulate to form the well-known ABC model of attitude: Affect (feelings), behavior tendency, and cognition (thoughts). Each of these dimensions is interlinked to one another. These components are also known as the tri-component view (Eagly and Chaiken, 1993). The affective element involves emotional reactions; the behavioral element involves one's predisposition or intention to act in such way that it depicts his/her attitude; and the cognitive element showcases the beliefs and thoughts towards the object of attitude. This model has an underlying assumption: there should be consistency between feelings, beliefs and actions of a person. If a disturbance occurs, then it will lead to anxiety and tension and the individual will try to bring his/her system back to equilibrium. On the contrast, LaPiere inflicted in his study that cognitive and affective component do not always match with behavior (LaPiere, 1934).

Nevertheless, attitude can be summed as evaluation of one's thoughts, beliefs and emotions towards the object or phenomenon, which may be dispositional, constructive or stable memory structures.

1.2. Disability

Disability occurs once in every normal individual's life. It can occur in anybody's old age, childhood, adulthood, or at birth. A person can be disabled for a lifetime or acutely for a short period. Generally, the term disability denotes any relatively chronic impairment of function. When someone is unable to perform one or more activities, which are generally accepted as necessary components of daily living such as self-care, social relationship and economic productivity, such condition is suggestive of disability (The Japanese Society for Rehabilitation of the Disabled, 1988).

The WHO's World report on disability (World Health Organization, 2011/2001) depicts disability as dynamic interplay between health conditions and contextual factors, both personal and environmental. In layman terms, the report portrayed disability as a phenomenon which hampers an individual physically, emotionally and mentally as well as socially in both private and public life. More specifically, it is a disturbance in the 'bio-psycho-social' model. The Government of India has defined disability as an existing difficulty in performing one or more activities, which are according with an individual's age, sex and normative social role, are generally accepted as crucial basic component of daily living, such as self-care, social relations and economic activity (Government of India, Ministry of Welfare, 1986).

Basically, a person is labeled as a disabled or handicapped based on his/her appearance which is a stigmatized or stereotypical view of the society at large. Disabled persons are perceived as people who cannot perform daily tasks smoothly and such labeling is stamped on all types of disabled persons without knowing their disability. A disability can be

cognitive, physical, mental, sensory, developmental, emotional, and at times mixture of few of these. A person can only be called disabled when s/he is unable to perform certain functions of his/her daily life.

1.2.1. Disability and psychology

In today's scenario, disability and psychology are assumed to go hand-in-hand. Disabled individuals go through a lot of discrimination and stigmatization in their routinely lives which causes a lot of mental damage and at times trauma. The World Disability Report (WHO, 2011) has reported the following data on the same:

- Negative attitude and behavior towards disabled persons causes negative consequences on disabled persons, such as low self-esteem and reduced participation.
- Disabled persons are harassed for their disability thus, leading social avoidance.
- Women with disability are less likely to get married to non-disabled person due to social judgement.
- Kids with disabilities are unlikely to attend schools. Thus, experiencing limited opportunity for employment and decreased productivity in adulthood.
- Households with a disabled member are more likely to experience material hardship, sanitation issues, accessibility issue with health-care and so on.
- Poverty increases the risk of disability.

In addition, disabled persons are rarely viewed in movies or televisions and if they are given a place in the entertainment media, then they are portrayed negatively in society which effects disabled person's self-perception, and also how they are perceived by other persons. Thomas (1999) had found that some disabled individuals internalise the negatively shown social values about disability or among their relationships with family, peers, professionals, or strangers.

1.3. Physical disability

Physical disability is a physical condition which affects the person's mobility, capacity, dexterity or endurance. It is related to the limitation that a person experiences which hampers the overall functioning of that individual. It is also cited as the incapacitation in an individual's physical or mental function resulting from pathological conditions as viewed and reacted within the socio-environmental context (Safilos-Rothschild, 1970). Williams (1984), Radley (1993) and Bozo (2009) have explained that people can make sense of their disabilities through the context of their personal biographies which in turn must be influenced by and tangled in with, the cultural values of the society in which they reside in. This statement clears that any disability is part of the function of the society which is failed to given recognition. Thus, terms like 'disabled', 'special', or 'handicapped' prevail to exist because they are not physically constructed, but also socially constructed. Nonetheless, physical disability has significant consequences on social relationships, mental health and well-being of a person. For instance, blindness limits a person's mobility and thus, the person is heavily inclined upon other people to finish his/her daily tasks. This causes the blind person to demand diverse things from others which makes him/her an object of ridicule. This affects the disabled person's social relationships and this person even questions his/her identity as a human being and also questions their sense of self.

Since physical disabled individuals are judged based on their appearance, they are viewed as a misfortune or even personal disasters. Consequently, these people react to such opinions by denying their existence and try to pursue their life as "normal" people. Many deaf people even try to hide their deafness by pretending to hear. But, there are some

people who accept their physical disability and don't fall into hopelessness and despair and showcase their worth in the society. Yet, these persons are mocked for using their health condition as an excuse for privilege which is not so. [Ludwig and Collette \(1970\)](#) have pointed out that social isolation, economic and personal dependency affects the mental health of disabled persons. Overall, these factors affect their quality of life.

1.3.1. Categories of physical disability

The denotation of physical disability varies across countries and so thus the categorization of physical disability. The Government of India, Ministry of Social Justice and Empowerment, has provided with the following categorization of physical disability:

Physical Disability (as per the Rights of Persons with Disabilities Act, 2016)

- A. Locomotor Disability
 - i. Leprosy Cured Person
 - ii. Cerebral Palsy
 - iii. Dwarfism
 - iv. Muscular Dystrophy
 - v. Acid Attack Victims
- B. Visual Impairment
 - i. Blindness
 - ii. Low Vision

- C. Hearing Impairment
 - i. Deaf
 - ii. Hard of Hearing
- D. Speech and Language Disability

On the other hand, National Educational Association of Disabled Students (NEADS) of Canada has given a totally contradictory categorization of physical disability, that is, Physical Disability (as per [NEADS, 2005](#))

1. Paraplegia
2. Quadriplegia
3. Multiple sclerosis (MS)
4. Hemiplegia
5. Cerebral palsy
6. Absent limb/reduced limb function
7. Dystrophy
8. Polio

In addition, International Classification of Disease, 10th revision [ICD-10] ([Diagnostic Codes Related to Family Infant Toddler \(FIT\) Program, 2015](#); [WHO, 1980](#)) has provided with a list of codes which connote the health conditions under the category of Physical Impairment ([Table 1](#)).

Table 1. ICD-10 Codes for Physical Impairments.

Condition Type	ICD-10 Code	Condition/Diagnosis
Physical Impairment	C69.01	Malignant neoplasm of right conjunctiva (Retinoblastoma)
Physical Impairment	C69.02	Malignant neoplasm of left conjunctiva (Retinoblastoma)
Physical Impairment	H33.001	Unspecified retinal detachment with retinal break, right eye
Physical Impairment	Q11.1	Other Anophthalmos
Physical Impairment	Q11.2	Microphthalmia
Physical Impairment	Q13.1	Absence of Iris (Aniridia)
Physical Impairment	Q13.89	Other congenital malformations of anterior segment of eye
Physical Impairment	Q16.1	Congenital absence, atresia and stricture of auditory canal (external)
Physical Impairment	Q17.2	Microtia
Physical Impairment	Q17.8	Other specified congenital anomalies of ear
Physical Impairment	Q67.8	Other congenital deformities of chest
Physical Impairment	Q74.9	Unspecified Congenital Malformation of Limb(s)
Physical Impairment	M06.9	Rheumatoid arthritis, unspecified
Physical Impairment	M41.20	Other idiopathic scoliosis, site unspecified
Physical Impairment	Q68.0	Congenital Torticollis
Physical Impairment	Q35.9	Cleft palate, unspecified
Physical Impairment	Q36.0	Cleft Lip, Bilateral
Physical Impairment	Q36.9	Cleft Lip, unilateral
Physical Impairment	Q37.9	Cleft Palate with Cleft Lip
Physical Impairment	Q71.60	Lobster-claw hand, unspecified hand
Physical Impairment	Q71.61	Lobster-Claw Right Hand
Physical Impairment	Q71.62	Lobster-Claw Left Hand
Physical Impairment	Q71.63	Lobster-Claw Hand, Bilateral
Physical Impairment	Q73.8	Other Reduction Defects of Unspecified Limbs
Physical Impairment	Q74.3	Arthrogryposis multiplex congenital
Physical Impairment	Q74.9	Unspecified Congenital Malformation of Limb(s)
Physical Impairment	Q75.0	Craniosynostosis
Physical Impairment	Q75.4	Mandibulofacial Dysostosis (Franschetti-Klein Syndrome)
Physical Impairment	Q79.0	Congenital Diaphragmatic Hernia
Physical Impairment	Q79.3	Gastronschisis
Physical Impairment	Q79.4	Prune Belly Syndrome
Physical Impairment	Q79.8	Other Congenital Malformations of Musculoskeletal System Poland's Syndrome
Physical Impairment	Q87.0	Congenital Malformation Syndrome Predominantly Affecting Facial Appearance Goldenhar's Syndrome (Oculouriculovertebral Dysplasia) 0

1.4. Empathy

Empathy has been procured from the German word, *Empfindung*, which means “feeling into”. Empathy is referred to as an emotional response to the perceived predicament of other person. It is viewed as the ability to experience similar emotions as that of the other person. In positive psychology, empathy is studied along with egotism, and a balance in egotism and empathy is perceived to be a portal towards altruism, forgiveness and gratitude. Egotism infers to the motive that a person pursues either for personal gain or benefit through certain behavior (Baumister and Vohs, 2007). Altruism is the behavior that is aimed at benefitting another person which can be invoked through personal egotism or empathic desire to help another person. Gratitude is the appreciation of the actions of another person and forgiveness is “a freeing from negative attachment to the source that has transgressed against a person” (Thompson et al., 2005). However, renowned philosophers such as Aristotle (384–322 BC), Thomas Hobbes (1588–1679) or psychologists as Sigmund Freud (1856–1939) had debated whether empathy, or egotism, or both fuel prosocial human behavior.

Social psychologist, Batson et al. (2002) do not deny that certain forms of altruistic behavior can be exhibited by egotism, but they also believe that under some situations, egotism cannot be motivated for helping. Thus, he gave rise to the empathy-altruism hypothesis which explains that under some instances the desire of “pure” empathy is required for helping other individuals, not egotism. Piliavin and Chang have opined (1990), “There appears to be a paradigm shift away from the earlier position that behavior that appears to be altruistic must, under closer scrutiny, be revealed as reflecting egoistic motives. Rather, theory and data now being advanced are more compatible with the view that true altruism – acting with the goal of benefiting another – does exist and is part of human nature.”

In sum, human being don't only behave in particular ways just to attain benefits, but they also behave in peculiar ways just for the sake of helping individuals in their turbulent times and out of empathy.

1.4.1. Types of empathy

Empathy is significant in order to form and maintain different forms of social relationships, and also helps in the development of prosocial behaviors (Roberts et al., 2014). However, empathy varies person to person, that is, empathy is categorized into two categories: cognitive and affective empathy. Cognitive empathy is the extent to which one successfully guesses someone's thoughts and feelings (Włodarski, 2015). This is more associated with visual perspective taking or complex mental challenges such imagining what the other person might be thinking. Also, greater cognitive empathy is known as empathic accuracy, where an individual has the precise knowledge of the contents of the other person's mind (also involves the feelings of that other person). On the other hand, affective empathy is inclined towards the emotional aspect of an individual. Hence, it is also called emotional empathy, which is sub-categorised into three components: i. emotional contagion (having the similar feeling as that of another person); ii. Personal distress (one's own feelings of distress in reaction to perceiving another's plight); and iii. Empathic concern/sympathy (the feeling of compassion towards another person). All of these accumulate to form emotional empathy. However, in social psychology, affective component of empathy is studied and shown more reliance than cognitive empathy as cognitive empathy might be linked to false consensus effects and other egocentric view of social psychology. For instance, in a study by Hynes et al. (2005), found a differential role of the orbitofrontal cortex in affective and cognitive empathy. They saw that the medial orbitofrontal cortex was more engaged in affective empathy rather than cognitive empathy.

Furthermore, affective and cognitive empathy show possible differences in their executive functions. Executive function refers to a set of mental skills which is composited of working memory, self-control and

flexible thinking. These skills are used on day-to-day basis such in planning, remembering, learning, or managing certain tasks. Miyake and colleagues (2000) have posited three subdomains of executive functions, that is, mental set shifting, inhibitory control, and information updating and monitoring. Each of these functions is stimulated by different brain regions to perform diverse functions, like attention. Also, both of these types are considered to be necessary for a successful social interaction to take place.

1.4.2. The biological evidence behind empathy

The foremost genetic hereditary of empathy was traced through twin studies. Studies have shown monozygotic twin correlations in the range of .22–.30 in comparison to dizygotic correlations with the range of .05–.09 (Davis et al., 1994; Zahn-Wexler et al., 1992). Another study has showed the correlations of monozygotic and dizygotic adult male twins -.41 and .05, respectively (Matthews et al., 1981).

Neural based studies have shown that the particular areas of the prefrontal and parietal cortices seem to be crucial for empathy (Damasio, 2002). Bechara et al. (1996) have elaborated that any damage to the prefrontal cortex leads to impairment in the appraisal of emotions of other people. Neuroscientist, Giacomo Rizzolatti, the discoverer of mirror neurons, has said that “neurons could help explain how and why we....feel empathy” (Winerman, 2005).

2. Objectives

1. To examine the attitudes among youth towards physically disabled persons.
2. To investigate the effect of empathy among youth towards physically disabled persons.
3. To study the relationship between attitudes and affective empathy among youth towards physically disabled persons.

3. Hypothesis

H1: There will be a significant difference between the attitudes of males and females towards physically disabled person.

H2: There will be a significant difference between the empathy of males and females towards physically disabled person.

H3: There will be a significant relationship between the attitudes and empathy among youth towards physically disabled persons.

H4: There will be a significant relationship between attitudes and the subtypes of affective empathy among youth towards physically disabled persons.

4. Methods

4.1. Design of the study

This study followed quantitative design. Further, the design of the study adopted is between group designs, more specifically, two-randomized-group design. Furthermore, this study administered ‘Attitudes Toward Disabled Persons Scale’ to measure attitude and ‘The Toronto Empathy Questionnaire’ to measure empathy. Descriptive statistics, Independent sample t-test and Pearson's Correlation were used to analyse the responses. Gender (Male and Female) was the independent variable, whereas attitude and empathy towards physically disabled persons were dependent variables.

4.2. Sample

The present study comprises 100 participants. The sample taken was the Indian youth under the age range of 18–25 years old, residing in India. The sample was divided into two parts: Males (50%) and Females

(50%). The responses were taken from various social networking sites like WhatsApp, Facebook, Instagram through the distribution of questionnaires from Google forms. Purposive sampling was used to collect the data.

In addition, a priori power analysis was conducted using G*power3 (Faul et al., 2007) to test the difference between two independent group means using a two-tailed test, a large effect size ($d = 2.1$), and an alpha of .05. Result showed that a total sample of 10 participants was required to achieve a power of .80. This sample size was required in the case of Attitude.

Likewise, another priori power analysis was conducted in the case of Empathy using G*power3 (Faul et al., 2007) to test the difference between two independent group means using a two-tailed test, a large effect size ($d = 0.9$), and an alpha of .05. Result showed that a total sample of 42 participants was required to achieve a power of .80. Thus, our proposed sample size of 100 was adequate for the objectives of this study.

4.3. Measures

Two scales were utilized in this study to examine the attitude of youth towards physically disabled persons, and their empathy towards them. Firstly, the scale for attitude was 'Attitudes Toward Disabled Persons Scale' (ATDP), which was given by Yunker, Block and Young (1970). This scale has three different forms: ATDP-O, ATDP-A and ATDP-B. However, for the current study, ATDP-O was utilized. The ATDP-O Scale consists 20 statements to which the participants choose from Strongly Agree to Strongly Disagree, using a six point Likert Scale. The administration of this questionnaire takes up to 15 min. The reliability of this scale was established through four means: test-re-test, parallel, split-half test, and covariance of test items. ATDP has an average reliability coefficient of .80 (Yunker and Block, 1986). Further, the content validity of this scale was established through literature view, and item analysis. The criterion and construct validity was made by comparisons with other attitude scales. Scores for the ATDP-O Scale ranged from 0 to 120. The interpretation of the scores depends on the perception of respondents, that is, whether they perceive disabled persons as same as non-disabled persons or not.

Secondly, the scale for empathy utilized was 'The Toronto Empathy Questionnaire' (TEQ) which was given by Spreng et al. (2009). TEQ Scale is a questionnaire made to measure empathy with a focus on the emotional component, and consists of 16 items. However, the cognitive component for this scale was mutually exclusive. The scale has a good internal consistency of .87, and depicted high test-retest reliability of .81. Also, the convergent validity was good in comparison to other self-report empathy scales. Since this scale is a 5-point rating scale, the scoring for all the items was direct (Never = 0, Rarely = 1, Sometimes = 2, Often = 3, Always = 4), except for items 2, 4, 7, 10, 12, 14, and 15, in which the scoring was reverse. High scores indicated high level of self-reported empathy with the range of scores between 43.46 to 44.45 for males, and 44.62 to 48.93 for females.

4.4. Procedure

The ATDP-O and TEQ questionnaires were made on Google Forms and were distributed online through various social networking applications like WhatsApp, Facebook and Instagram, and via e-mail. The participants were mainly young individuals under the age range of 18–25 years old, and purposely University students were approached through virtual media as they met the required sample criterion which was of interest for this study. The sample was assured that their reactions would be kept confidential and all the data was recorded respectively. Later, the participants were debriefed after they finished the questionnaire. The scores of the respondents were then uploaded on SPSS and their scores were analyzed through Descriptive Statistics, Independent sample t-test and Pearson's Correlation, and the results were obtained.

4.5. Approving Ethical Committee

The present research was approved by the Department of Applied Psychology, Shyama Prasad Mukherji College of Women, University of Delhi.

5. Results

The current study investigated the attitudes and empathy of youth towards physically disabled persons. Furthermore, the gender differences were examined in this study. The study involved a sample of 100 individuals, that is, 50 males and 50 females in the age range of 18–25 years. Purposive sampling was the sampling techniques used in this study. The responses attained were uploaded on SPSS software and descriptive statistics, independent sample t-test and Pearson's correlation was applied on the responses. Gender (male and female) was the independent variable, and attitude (ATDP – Attitude towards Disabled Persons) and empathy were the dependent variables. Finally, the results were obtained which are elaborated below.

5.1. Attitudes of youth towards physically disabled person

H1: There will be a significant difference between the attitudes of males and females towards physically disabled person.

For the first hypothesis, the findings revealed that there was no statistically significant difference in the attitudes of males ($M = 60.24$; $S.D. = 1.315$) and females ($M = 62.86$; $S.D. = 1.131$) towards physically disabled persons, $t(98) = -1.06$, $p = .288$.

In support for the finding, we observed that female showed negative attitude towards physically disabled persons, with the mean of 62.86 which is below than the given female mean of 75.42 (as given in the ATDP [FORM-O] manual). Further, males also had negative attitude towards physically disabled persons with the mean of 60.24 which is below than the given male mean of 72.80 (as given in the ATDP [FORM-O] manual). However, this finding also exhibits that although no significant difference between Genders was found, but it was because both had negative attitude towards physically disabled individuals (one-directional). The finding for H_1 is given in Table 2.

5.2. Empathy of youth towards

H2: There will be a significant difference between the empathy of males and females towards physically disabled person.

The outcome for third hypothesis showed that there was no statistically significant difference in the empathy of males ($M = 45.50$; $S.D. = 6.81$) and females ($M = 46.14$; $S.D. = 7.03$) towards physically disabled person, $t(98) = -.46$, $p = .645$.

The result can be supported by noting that the mean range given by Toronto Empathy Questionnaire is 44.62–48.93 for females, and for males, the mean range is 43.46–44.45. Thus, the empathy result of this study was in between the given mean range, that is, females was 46.14 and males was 45.50 (Table 3). Therefore, this finding showcases that although no significant difference between Genders was found, but it was because both were equally empathetic towards physically disabled people (one-directional). Interestingly, the mean of male (45.50) was higher than the given mean range, depicting a good level of self-reported empathy is assumed uncommon in males in general. The result is shown in Table 3.

5.3. Relation between attitudes and empathy

H3: There will be significant relation between the attitudes and empathy among youth towards physically disabled persons.

The findings for this hypothesis displayed strong and positive correlation between attitudes and empathy among youth towards physically

Table 2. Descriptive Statistics and t-value of ATDP (Attitudes towards Disabled Persons) among youth.

Gender	N	Mean	Standard Deviation (S.D.)	T
Males	50	60.24	1.315	-1.06
Females	50	62.86	1.131	

Table 3. Descriptive Statistics and t-value of Empathy among youth.

Gender	N	Mean	Standard Deviation (S.D.)	T
Males	50	45.50	6.81	-4.46
Females	50	46.14	7.03	

Table 4. Correlation between ATDP (Attitudes towards Disabled Persons) and Empathy among youth.

Variables	ATDP	Empathy
ATDP	1	
Empathy	.305**	1

**p < .01.

Table 5. Correlation between ATDP (Attitudes towards Disabled Persons) and Subtypes of Affective Empathy among youth.

Variables	ATDP	Emotional contagion	Emotional comprehension	Sympathetic Physiological arousal	Altruism	Sensitive Behavior	Helping Behavior
ATDP	1						
Emotional contagion	.254*	1					
Emotional comprehension	.144	.246**	1				
Sympathetic Physiological arousal	.128	.416**	.266**	1			
Altruism	.183	.260**	.170	.389**	1		
Sensitive Behavior	.290**	.349**	-.097	.387**	.274**	1	
Helping Behavior	.030	.192	.215*	.250*	.249*	.059	1

*p < .05.

**p < .01.

disabled persons, $r = .305$, $n = 100$, $p = .002$, which is depicted in Table 4.

5.4. Relation between attitudes and subtypes of affective empathy

H4: There will be significant relation between attitudes and the subtypes of affective empathy among youth towards physically disabled persons.

In the last hypothesis, it was found that there was significant relation between only two subtypes of affective empathy and attitudes among youth towards physically disabled persons, that is, between emotional contagion and ATDP ($r = .254$, $n = 100$, $p = .011$; $p < .05$), and between sensitive behavior and ATDP ($r = .290$, $n = 100$, $p = .003$; $p < .01$). The result is given in Table 5.

6. Discussion

The goal of this study was to explore the attitudes and empathy of youth towards physically disabled persons. Attitudes are viewed as a desired or undesirable appraisal towards a particular object, phenomenon, person, or situation. Such an appraisal comes from the established beliefs, emotions, and behavior towards the object, phenomenon, person, or situation. The attitudes of youth today are mix, with some conservative and some liberal attitudes towards different concepts in life like disability. However, such forms of attitudes can be seen especially among the Indian youth, since the study includes sample of Indian youth. Nevertheless, such attitudes can also be seen in different parts of the

world as well, although the youth in developed countries are assumed to be open minded, but the case is opposite of the assumption with people having mixed attitudes – some conservative, some liberal, and some neutral attitudes.

Since the study examines the attitudes of youth towards physically disabled persons, it is necessary to know the perception of people towards disability in general. As per Article 1, Convention on the Rights of persons with Disability, disability is recognized as a “long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may impede their complete and effective contribution in society on an equal basis with others”. Finkelstein (1980) has told that countries where division of classes exist, in such societies, disabled persons are looked upon as a misfortune to both the family and the person suffering from disability itself. Moreover, physically disabled person suffer the most especially in Indian society (Bhat, 1963). She says that in some tribes, children with physical disability were killed at birth, and in urban cities, the concept of infanticide, that is, killing a child at birth, was practiced, especially in Asia, Africa, Oceania, and America because of their detected physical disability. Also, UNICEF has told that a disability becomes problematic when people in the society hold problematic attitudes and create environmental barriers for them.

Another crucial concept that was studied in this research was empathy towards physically disabled persons. Empathy means to understand and share the emotions of another person as if it is your own feelings. Empathy is of two types mainly: affective and cognitive empathy. The former taps the emotional empathy within the person, whereas the latter taps a person’s thoughts and feelings of another

person. In general, people look at any individual with disability with pity, which is basically sympathy. People think that a person with disability cannot carry out most of the life tasks, and they also are sensitive in nature. Such assumptions are false because people who are disabled, let it be physical disability can carry most of the task on their own and they are normal individuals like non-disabled persons. But, due to the lack of empathy in our society, a stigma and discrimination towards disabled pupil still prevails. Further, this study leaned more towards affective empathy, although cognitive empathy was mutually exclusive in some items of the questionnaire used (Toronto Empathy Questionnaire). The current research also used a well-known questionnaire, namely, 'Attitudes Toward Disabled Persons' (ATDP) Scale (Yuker et al., 1960). This study used purposive sampling to attain the desired population, that is, youth, and applied descriptive statistics, Independent samples t-test and Pearson's correlation on the respective responses.

Moreover, gender differences in attitudes and empathy of youth were explored. However, no significant difference was found in the attitudes of male and females towards physically disabled persons (H_1 ; $t = -1.06$). Similarly, no significant difference was present in the empathy between males and females towards physically disabled persons (H_2 ; $t = -.46$). This is because of certain cultural factors present in our society and also because certain males and females look at disabled people with equality rather than inferior to them (Tamm and Prellwitz, 2001). In a country like India, disabled individuals are seen as vulnerable and burdensome. Such an ideology arises from the Indian scriptures and folklores which has been passing on from one generation to another, and still prevails in the modernized society where laws and benefits exist for any disabled person. In India, a term called 'Charak Sinhala' exists which means that diseases or any sort of misfortune exists due to the result of misdeed in the previous life (Mukherjee and Wahile, 2006). Even though we live in a rapid world of development and advancement, yet such ideology exists in the minds of youth today. Thus, due to such mind-sets in both the genders, getting a difference in their attitudes became difficult.

In addition, on the basis of review of literature, it was assumed that females would hold a positive attitude towards physically disabled persons (H_1). Contradictory, the result came out to be negative in both females as well as males, that is, no significant difference between the two genders. Similarly, Wilson and Scior (2013) did a review of past literatures on the attitudes of physical and intellectual disabilities. They found that most of the studies depicted males and females having negative attitude towards physically disabled persons. They also mentioned that it was due to the implicit attitudes of non-disabled people. Implicit attitude refers to the unintentional introspection of one's personal past experiences which mediate in favourable or unfavourable response (feelings, thoughts, behavior) towards a social object - person, thing, situation, or any phenomenon (Greenwald and Banaji, 1995). Furthermore, in developing countries like India, there are several factors due to which a negative attitude has been created in the minds of youth. For instance, the superstitious traditions which still view physically disabled persons as a sin, and therefore, at times, subject disabled individuals to various detrimental treatments (Sengupta, 1996). Also, prevention of physically disabled person to participate in social gathering by families, or the lack of education or employment opportunities towards the disabled sector (Kalyanpur, 2008) have created a narrow mind-set in the young minds that the disabled people are more of a burden to the society than an asset itself.

Likewise to the previous hypothesis, another hypothesis was tested in this study to see whether females were more empathetic than males or not towards physically disabled persons (H_2). Fortunately, the findings although non-significant depicted that females and males were equally empathetic towards physically disabled people, though females slightly more empathetic than the latter. This is because girls seemed to be more sensitive and social when it comes to approaching people with disability (Georgiadi et al., 2012). Also, in the present research, it was checked whether there was any significant relation between the attitudes and empathy among youth towards physically disabled persons (H_3). The

result for this hypothesis came out to be true that there was a significant relation between the attitudes and empathy of youth towards physically disabled persons ($r = .305$). This means that the more empathy in a person, the more positive attitude of a person towards physically disabled persons and vice versa. Such a finding was found in another study where empathetic activities applied on nursing students in order to make their attitudes positive towards disabled persons (Geçkil et al., 2017). Lastly, a statistically significant relation was tested between attitudes and subtypes of affective empathy among youth towards physically disabled persons (H_4). Surprisingly, the result came out to be positively correlated to two subtypes of affective empathy, that is, emotional contagion and sensitive behavior. This result was interesting because some items in both the types had aspects of cognitive empathy. Emotional contagion refers to the tendency of a person to mimic and coordinate the facial expressions, vocalizations, postures, and movements with those of another individual (Hatfield et al., 1994). Basically, someone's triggering of certain emotions and behaviors in other person. Whereas, sensitive behavior refers to 'assessment of emotional states in others by indexing the frequency of behaviors demonstrating appropriate sensitivity' (Spreng et al., 2009). Both of these subtypes tap not only affective empathy, but also the thoughts and feelings of other person, that is, cognitive aspect of empathy. This showcases empathy plays a crucial role in the attitude of youth towards physically disabled persons.

Finally, the physically disabled sector of the Indian population have various unmet challenges which needs to be tackled which will help to change the attitude of youth, and alleviate their empathy towards them: the necessity to eliminate attitudinal deterrents among communities (Janardhana and Naidu, 2012); the necessity to provide disabled friendly infrastructures in schools and to train teachers to provide optimal support to disabled students; the necessity to embrace a down to top approach when it comes to policy design.; the necessity to monitor and promote service outreach for disabled people below district level (Pinto and Sahur, 2001); and others. Thus, an effective and extensive strategy is urgently needed by the disabled section of India which empowers them at all levels and makes them feel more accepted in the society.

7. Limitation

The study had some limitations. First, data collection became difficult due to the sudden enforcement of lockdown because of COVID-19 in the nation. Therefore, the data had to be accumulated through virtual media. Secondly, complete responses were not provided by the participants in the questionnaire which led to discarding of participants and re-sending of questionnaires to new subjects. Third, cognitive empathy was not fully tested, although some aspects of it were present in certain items of the Toronto empathy questionnaire. Fourth, data of physically disabled persons was not included. Finally, the study can be improved by increasing the number of subjects for more generalized results.

8. Future implications

The results from this study indicates that attitude plays a significant role in creating a specific impression of a person in the society especially physically disabled persons who are seen with negative attitudes and vulnerability, and also a need for empathetic people in the society. A change in the attitudes of people in the system of the society is the need of the hour. The Ministry of Social Justice and Empowerment, Department of Empowerment of Persons with Disabilities can use the findings of this study to understand the gap that exists in the implementation of the policies in diverse organizations, therefore understanding the current conditions of physically disabled persons and take necessary actions to create awareness of disability in general, and how disabled people are a valuable asset to the nation rather than misfortunes. Corporate sectors can utilize this study to understand the stigmatization and discrimination of physically disabled persons due to negative thoughts and beliefs at an organizational level, and the need for attitude-empathy intervention

among employees to change their attitudes (negative if present) towards physically disabled persons into a positive one. Also, this study can be used in schools and universities in order to create positive attitudes and sensitization among students of all ages towards disabled persons and make them more empathetic as the students will be future of tomorrow.

9. Conclusion

The findings of this research provided a deeper understanding in attitude and empathy of youth towards physically disabled persons. The insights of the study showed how physically disabled people are still seen as crippled, or disadvantaged by the current youth which was surprising because we live in a world where we have accepted other communities like LGBTQ, yet the youth feels uncomfortable when it comes to disabled people. However, they are becoming more accepting with time as it was visible through the results of empathy. Still, awareness and interventions at different sectors of the society is required to normalize disability in our society.

Declarations

Author contribution statement

Naveli Sharma: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Virendra Pratap Yadav: Conceived and designed the experiments; Analyzed and interpreted the data.

Aashima Sharma: Analyzed and interpreted the data.

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Data included in article/supplementary material/referenced in article.

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Additional information

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