

Knowledge and Attitude Towards Down Syndrome Among People at Ahmedabad

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ABSTRACT

Background: A genetic condition known as Down syndrome (DS) is characterised by the presence of an extra copy of the 21st chromosome. The cause of the extra full or partial chromosome is unknown. Down syndrome affects approximately 1 in 733 live births. Understanding deficiencies in this knowledge and attitude about DS can help us raise awareness among the masses about the genetic disorder, in turn facilitating social insertion of individuals with DS. In this study we assess the knowledge and attitude towards DS among people of Ahmedabad.

Methodology: Young adults were randomly surveyed at community level using a questionnaire which was filled through google form. The questionnaire included 7 questions for knowledge and 7 questions for attitude. Ethical Approval has been taken.

Results: Statistics were done of the 188 participants, out of whom 36% participants had inadequate knowledge and 22% had unfavourable attitude.

Conclusion: It can be concluded from this study that there is a significant gap in knowledge about Down syndrome, which leads to an unfavourable attitude towards people with DS and somewhat misunderstanding of their condition.

Keywords: Down syndrome, Knowledge, Attitude

INTRODUCTION

A genetic condition known as Down syndrome (DS) is characterised by the presence of an extra copy of the 21st chromosome.^[1] Maternal age is the sole factor that has been connected to a higher risk of having a baby with Down syndrome; the reason for the extra whole or half chromosome remains unknown.^[1] For the whole European Union, from 1980 to 1999, the percentage of births to mothers who were 35 years of age increased rather drastically, from 8 to 14%.^[2]

This condition affects one in every 733 live births worldwide.^[3] It is characterised by distinctive dysmorphic characteristics^[4] and children with DS acquire motor skills at a slower pace than typically developing

children throughout childhood. These delays grow more pronounced as children become older and their skills become more complex.^[5] People with DS usually have a mild to moderate intellectual disability, ligamentous laxity, and overall hypotonia, which may reduce postural and gait stability.^[6] People with DS typically live shorter lives and experience consequences like Alzheimer's disease, cardiac issues, and mental retardation. This condition's severity varies from patient to patient, though.^[7]

Social integration is crucial to the wellbeing of those with disabilities. Their ability to adjust to society, however, is dependent on the attitude of the society, which can range from acceptance to stigmatisation depending on the surrounding culture and value system

as well as the general public's perception of the state of disabled individuals.^[8] A majority of parents are not familiar with the condition and are also unaware of any potential etiological causes.^[9] Early treatments can enhance the quality of life for people with Down syndrome and their families ^[10], and public perceptions of the condition and attitudes towards those whose condition is crucial.^[11]

People with Down syndrome may face unnecessarily low demands and expectations, which can impair their growth and social integration. This is because of persistent myths and preconceptions regarding the condition. Families having a child with Down syndrome might gain knowledge from educational resources that aim to address and dispel common misconceptions regarding the condition.^[12] Understanding gaps in knowledge and attitudes about DS can help us increase public awareness of the genetic illness, which will then make it easier for people with DS to integrate into society. In this study, we assess the knowledge and attitude towards DS among people of Ahmedabad.

MATERIALS & METHODS

This community-based population survey was carried out in Ahmedabad, Gujarat. We conducted a random poll of young individuals utilising a Google Form-based questionnaire. This cross-sectional observational study used a simple random sampling technique.

The questionnaire included 7 questions related to knowledge about Down syndrome and 7 questions related to attitude towards people with Down syndrome. Answering yes or no to these 14 questions about Down syndrome is required. This questionnaire was filled by 188 participants in total. People who have Down syndrome, as well as their parents and siblings, were not included.

STATISTICAL ANALYSIS

All the data was analyzed using Microsoft excel version 2007. Based on the number of

accurate replies from each part (knowledge and attitude), we computed a score to determine the level of knowledge and attitude. As a result, we determined the percentage of people who have adequate knowledge and a favourable attitude.

RESULT

Total of 188 participants filled out the questionnaire. Analysis of the knowledge questionnaire showed that around 76% participant thought that DS was diagnosed based on blood test or diagnostic tools & only 24% participants knew it was based on genetic test & appearance.

72% of participants believed that DS is a congenital disease; around 32% believed that it does not go away when he or she grows up; and another 80% believed that their siblings have DS.

73% of people thought DS was a genetic disease; around 68% thought it was curable; and another 67% believed that it could be prevented.

Participants' responses to the attitude questions towards DS showed that around 76% thought that children with DS understand speech, and another 55% believed that they can get married and have babies.

Around 87% of people recommend special help services, and 74% think children with DS can attend mainstream school. Additionally, around 74% said that as an employer, they will give jobs to them, and 86% remarked that they will like to play their role in improving the quality of life of people with DS. Around 92% believed that they would support the DS people in living a normal life.

Based on their scores, the subjects were categorised as those with adequate or inadequate Knowledge and those with favourable or unfavourable attitudes towards DS. Overall, we found that 36% of interviewees had inadequate knowledge and 22% had an unfavourable attitude (figure - 1).

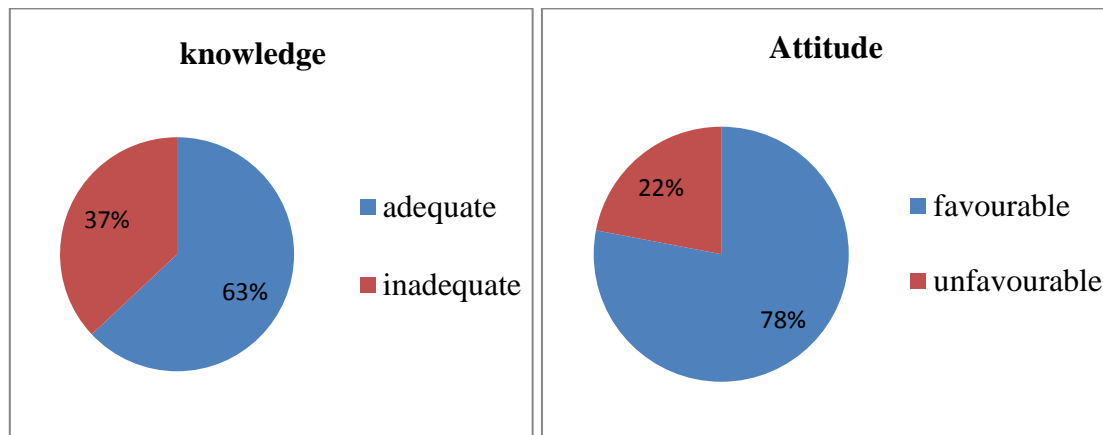


Figure-1: Knowledge & Attitude about DS in Ahmedabad

DISCUSSION

This study evaluated people's attitudes towards Down syndrome and their knowledge about Down syndrome in Ahmedabad. The findings show that there are significant lacks of knowledge about Down syndrome, which contribute to widespread stigmas about people with DS and restrict their ability to integrate into society.

Most of the interviewees replied that DS can be detected by blood tests or by ultrasound examination, both of which are screening methods for DS, while Only a third of the participants replied that the diagnosis of DS is based on genetic tests, which seems inconsistent with the fact that the majority of them think that DS is a genetic and congenital disease (responses to questions 2 and 3).

With regards to the attitude about individuals with DS, One-third of the respondents believed that people with DS are unable to understand speech People with DS have impaired expressiveness but more conserved receptiveness in their verbal skills. In other words, the majority of people have no or little trouble understanding verbal communication, yet almost half of them have issues interacting properly. ^[13]

Language skills are the issue that leads to education. Most interviewees agreed that DS kids may attend regular schools. Students with disabilities, such as DS, had limited access to education for a very long time. However, many countries support

enrolling DS students in regular schools. Integrating children with DS into regular schools is a very helpful method since it helps in the development of their cognitive and communication skills ^[14], involves them in regular activities ^[13], and improves their socialization process. Children with DS who grow up in natural social environments are able to develop friendships more easily than those living in specialized centers or group homes. ^[15] Children with DS have relatively conserved emotional skills, in comparison with other disabilities. ^[16]

With regard to the last question of our questionnaire, about three out of every four respondents feel that they want to do something to improve the lives of people who have Down syndrome because they believe that society has neglected them. This shows that there is an obvious gap between how people think about DS and how persons with DS view themselves as well as the shared experience of their parents. ^[15] These opinions generate a lot of ethical questions, especially if they are largely held in the collective unconscious on a social scale where "normal" people form the majority and persons with DS form up the minority.

Mohammed H. Alhaddad et al. ^[17] Conducted study in 2018 reported there is important deficits in the general knowledge about DS leading to unfavorable attitude towards people with DS, which results in a certain overestimation of their handicap.

Shaji Thomas John et al. [18] Conducted study on Knowledge, Attitudes and Beliefs of Caretakers of Children with Down syndrome & they concluded that the majority of families managed having a kid with Down syndrome well, and spouses and siblings received helpful support. However, there is a need to increase early diagnosis, counseling, and therapy implementation. In order to help them lead as normal a life as possible, it is important to assist them in obtaining good vocational training and, later, a suitable job.

CONCLUSION

It can be concluded from this study that there is significant gap in knowledge about Down syndrome, which leads to unfavourable attitude towards people with DS and somewhat misunderstanding of their condition. It takes a thorough understanding of the conscious and unconscious social elements that contributes to stigmatisation, as well as the distribution of targeted information during public awareness campaigns, to successfully integrate this category of people. As such, many studies should be carried out to give the necessary information and raise public knowledge of Down syndrome.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. National Down Syndrome Society. Down syndrome facts. <http://www.ndss.org/Down-Syndrome/Down-Syndrome-Facts/> Accessed June 7, 2016.
2. Dolk H, Loane M, Garne E, De Walle H, Queisser-Luft A, De Vigan C, et al. Trends and geographic inequalities in the prevalence of Down syndrome in Europe, 1980-1999. *Revue d'épidémiologie et de santé publique*. 2005; 53:87-95.
3. Brenden Lee. Down syndrome and other abnormalities of chromosome number. In: Kliegman RM, Blum NJ, Tasker RC, editors. *Nelson textbook of Paediatrics*. 21st ed. Elsevier; 2020:658-664.
4. Enea-Drapeau C, Carlier M, Huguet P. Tracking subtle stereotypes of children with trisomy 21: From facial-feature-based to implicit stereotyping. *PloS one*. 2012; 7(4):e34369
5. Palisano RJ, Walter SD, Russell DJ, et al. Gross motor function of children with Down syndrome: creation of motor growth curves. *Arch Phys Med Rehabil*. 2001;82:494-500
6. Shumway-Cook A, Woollacott MH. Dynamics of postural control in the child with Down syndrome. *Phys Ther*. 1985;65:1315-1322
7. Weijerman ME, de Winter JP (2010): Clinical practice. The care of children with Down syndrome. *Eur J Pediatr*., 169(12):1445-52.
8. King G, Zwaigenbaum L, King S, Baxter D, Rosenbaum P, Bates A. A qualitative investigation of changes in the belief systems of families of children with autism or Down syndrome. *Child: care, health and development*. 2006; 32(3):353-697
9. Lakshminarayana P, Ibrahim S, Venkataraman P, Jagatheesan T, Kamala KG. KAP study on mothers of children with Down syndrome. *Indian Pediatr*. 1991 Sept; 28: 997-1001
10. Bailey DB, Bruder MB, Hebbler K, Carta J, Defosset M, Greenwood C, Kahn L, Malli S, Markowitz J, Spiker D, Walker D, Barton L (2006): Recommended outcomes for families of young children with disabilities. *Journal of Early Intervention* ,28:227-251
11. Antonak RF, and Livneh H (2000): Measurement of attitudes towards persons with disabilities. *Disabil Rehabil*., 22(5):211-24.
12. Levis DM, Harris S, Whitehead N, Moultrie R, Duwe K, Rasmussen SA. Women's knowledge, attitudes, and beliefs about Down syndrome : a qualitative research study. *Am J Med Genet*. A.2012; 158A(6):1355-1362
13. Bertoli M, Biasini G, Calignano M, Celani G, De Grossi G, Digilio M, et al. Needs and challenges of daily life for people with Down syndrome residing in the city of Rome, Italy. *Journal of Intellectual Disability Research*. 2011; 55(8):801-20

14. De Graaf G, Van Hove G, Haveman M. More academics in regular schools? The effect of regular versus special school placement on academic skills in Dutch primary school students with Down syndrome. *Journal of Intellectual Disability Research*. 2013; 57(1):21-38.
 15. Skotko BG, Levine SP, Goldstein R. Having a son or daughter with Down syndrome: Perspectives from mothers and fathers. *American Journal of Medical Genetics Part A*. 2011; 155(10):2335-47.
 16. Pochon R, Declercq C. Emotion recognition by children with Down syndrome: A longitudinal study. *Journal of Intellectual and Developmental Disability*. 2013; 38(4):332-43.
 17. Alhaddad MH, Anwer F, Basonbul RA, Butt NS, Noor MI, Malik AA. Knowledge and attitude towards Down syndrome among people in Jeddah, Saudi Arabia. *Proceedings SZPGMI*. 2018;32(1):56-65.
 18. John ST, Gayathri K. Knowledge, Attitudes and Beliefs of Caretakers of Children with Down Syndrome. *BMH Medical Journal-ISSN 2348-392X*. 2020 Apr 9;7(3):50-8
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