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Employment Quotas for Adults who Stutter: A Preliminary Study

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Abstract

Background: Adults who stutter (AWS) are often underestimated in their working abilities during job interviews because of their stuttering. A little over 100 countries provide employment quotas for people with disabilities in their national legislation. In Japan, AWS with medical disability certification can use this quota system. This preliminary study examined whether AWS hired through such quotas feel satisfied.

Methods: This study used a nine-item questionnaire regarding employment quotas to obtain information from 12 participants enrolled in the study. Their responses to the questions were used to assess their levels of satisfaction with the disability quota and workplace environment.

Results: Most AWS were satisfied with the interviews and employment opportunities provided via employment quotas. They did not feel discriminated against or report receiving a lower salary compared with those hired through general employment.

Conclusion: Thus, employment quotas are beneficial in widening the range of choices for AWS and contribute toward AWS having difficulty finding employment.

Keywords

Stuttering, Interview, Work, Employment quotas, Disability certification

Abbreviations

AWS: Adults Who Stutter; LSAS: Liebowitz Social Anxiety Scale; SDGs: Sustainable Development Goals; UNCRPD: United Nations Convention on the Rights of Persons with Disabilities

Introduction

Childhood-onset fluency disorder (stuttering) is a neurodevelopmental disorder defined by the DSM-5 [1]. Many researchers have reported the negative impacts of stuttering on adults who stutter (AWS) in attaining employment and performing their workplace duties [1-19]. In a study by Blumgart, et al. 50% of AWS believed that their stuttering made it difficult to obtain employment [2]. More than 70% of AWS agreed that stuttering decreases one's chances of being hired or promoted [12]. Stuttering influenced the choice of work and left AWS dissatisfied with their careers [7]. AWS experience negative self-stereotyping and self-stigma [12,20-22], feelings of being discriminated against at work [16-20], poor inter-office relationships [13], and difficulty using a telephone [11]. Stuttering is associated with reduced wages [8], lower socioeconomic status of occupation [14], and restricted choice of occupation [9,12,19]. Employers negatively judge AWS during

job interviews and promotional opportunities due to stuttering [15]. Knowing a person who stutters at one's workplace was significantly associated with more positive behaviors. Professionals can assist AWS before applying for a job by working through communication-related fears and heightened vigilance that they may develop due to a particular job or experience [16]. Professionals can also assist AWS with self-advocacy strategies and impart knowledge regarding their legal rights as an employee who identifies as a person with a communication disability and has a legal understanding of workplace discrimination [16]. Therefore, we need to consider a new support method based on the national law for job interviews and employment opportunities.

Employment quotas represent one of the most frequently used policy measures to promote employment opportunities for individuals with disabilities. Currently, 103 countries provide employment quotas in their national legislation. Out of the 103 countries, 33 (32%) had quotas backed by levies or fines [23,24]. For example, a 6% quota obligation is present for public and private employers with 20 or more employees in France. In Germany, all employers of 20 or more workers are obligated to employ individuals with severe disabilities in 5% of their posts. A compensatory levy, amounting to between Euro 105 and 260, is payable monthly in case of non-compliance [24].

Since the 1980s, policy focus in many countries has shifted from sheltered employment to inclusion in the open labor market, with an associated aim of promoting the transfer of workers with disabilities from sheltered to open employment. This shift has been accelerated by the entry and adaptation of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2008, which requires states parties to promote employment opportunities for individuals with disabilities. Quota schemes have been reformed in some countries to offer alternatives to employers other than the option of subcontracting to sheltered companies or creating segregated work settings. The UNCRPD also obliges states parties to safeguard and promote the realization of the right to work by taking appropriate steps to prohibit discrimination based on disability in all matters concerning all forms of employment, employ individuals with disabilities in the public sector, and promote the employment of persons with disabilities in the private sector through appropriate policies and measures, including affirmative action programs, incentives, and other measures. These ideas are also included in the Sustainable Development Goals (SDGs) adapted by the United Nations member states from 2015 to 2030. The SDGs include several goals that explicitly mention persons with disabilities: Goal 8 on economic growth, full and productive employment, and decent work for all, which include achieving full and productive employment and decent work for individuals with disabilities, and equal pay for work of equal value and

Goal 10 on reducing the inequality within and among countries, including promoting the social, economic, and political inclusions of individuals with disabilities.

Japan's efforts to facilitate the employment of individuals with disabilities are fundamentally based on the principle of achieving an inclusive society. The Act on Employment Promotion of Persons with Disabilities set out an employment quota for individuals with disabilities as an obligation for enterprises and other such employers to fulfill. In Japan, private employers with 50 or more employees are obligated to meet a quota on the employment of 2.3%, whereas public employers have a quota obligation of 2.6%. Private-sector employers with over 100 regular employees are levied 50,000 yen per month for each unfilled quota position [24]. Thus, the act sought to ensure that individuals with disabilities receive similar opportunities to become regular employees as workers without disabilities. Disability certifications are mandatory for adults to apply for employment quotas. There are three types of disability certifications: Physical, intellectual, and mental. Only medical doctors can issue these disability certifications. By interpreting the laws related to physical disorders, adults with severe stuttering deserve physical disability certification [25]. Since stuttering is a neurodevelopmental disorder in the DSM-5, an individual who stutters, regardless of the severity, is eligible for a mental disability certification in Japan [26].

This study investigated whether AWS hired through the disabled quota were satisfied with jobs interviews or workplace, faced discrimination, and received reasonable accommodation.

Methods

Participants

The participants of this study were 12 AWS, all of whom were hired through disability quotas. All participants were consulted at the Kyushu University Hospital. Their backgrounds are presented in Table 1. The participants comprised ten men and two women, with a median age of 22 (range, 19-50) years. Their highest educational levels were university, junior college, and vocational school levels in eight, one, and three participants, respectively. The mean stuttering rate was 23.3% (5-80%). The Liebowitz Social Anxiety Scale (LSAS) is a 24-item, self-reported question that measures social anxiety in a range of social interactions and performance situations that may be feared and/or avoided by individuals with social phobia [27]. Participants used four-point Likert scales to rate their levels of fear and avoidance during the previous week. Item responses for each scale were summed to calculate a total LSAS score between 0 and 144, with higher scores indicating more severe social anxiety. The average LSAS score was 59 (range, 27-119).

Table 1: Participants' characteristics.

No.	Age	Sex	Final educational level	Stuttering rate (%)	LSAS score	Job searching period	Disability certificate	Sector type	Type of work	Work period
1	19	M	Vocational school	8	93	21 months	Mental	Public	Clerical work	1 year
2	20	M	University	12.5	27	10 months	Mental	Private	Specialized job (technician)	1 year
3	22	M	University	3.3	62	7 months	Mental	Public	Clerical work	1 year
4	31	M	University	5	39	20 months	Mental	Public	Clerical work	1 year
5	33	M	University	2.8	56	3 months	Mental	Private	Clerical work	1 year
6	23	M	Vocational school	7.6	57	6 months	Mental	Private	Clerical work	2 years
7	22	M	University	60	83	2 months	Physical	Private	Clerical work	2 years
8	22	F	University	23.3	95	3 months	Mental	Private	Clerical work	3 years
9	24	M	University	55	50	4 months	Physical	Private	Specialized job (technician)	3 years
10	20	F	Junior college	20	119	4 months	Mental	Private	Clerical work	4 years
11	21	M	Vocational school	39	62	21 months	Physical	Private	Specialized job (technician)	4 years
12	50	M	University	80	-	3 months	Physical	Private	Specialized job (technician)	8 years

Background of 12 adults who stutter hired through employment quotas

The average job searching period was 7.5 (range, 2-21) months. Most participants sought employment through the disabled quota since they had not cleared interviews in the general quota and were wary of stuttering underestimation. However, the hiring companies informed participant nos. 2 and 7 that they could be hired through the disabled quota as they stuttered. Therefore, the participants obtained a disability certificate and were hired in the disability quota. Disability certifications include four physical and eight mental certifications. The hiring companies consisted of nine private and three public sector companies with 11 regular and one non-regular type of employment. Types of work were clerical services and specialized jobs (technician) in eight and four participants, respectively. The median work period was 2 (range, 1-8) years.

Survey

We formulated nine questions related to quota interviews and employment. The following three questions were related to interviews and employment: (Q1) Did you feel discriminated against during the disability interview for the disability quota?, (Q2) did you feel reasonable accommodations were provided during the interview for the disability quota?, and (Q3) did the interview for the disability quota go well? The following six questions were related to work: (Q4) Do you feel discriminated against at your workplace?, (Q5) do you feel reasonable accommodations are provided at your workplace?, (Q6) is employment through the disabled quota good?, (Q7) would it be possible to join the company you are currently employed at without using the disability quota?, (Q8) is your salary lower than those hired through the general quota (same work, same years of service)?, and (Q9) was it beneficial to receive a disability certificate? A five-point Likert scale was used, ranging from "strongly agree" (1) to "neutral" (3) to "strongly disagree" (5). Therefore, a mean of 1 would indicate that all participants "strongly agree" with a statement, whereas a mean of 5 would signify "strong disagreement." This study was approved by the Institutional Review Board of Kyushu University and was conducted according to the Declaration of Helsinki.

Results

The details of the nine questions regarding employment quotas are shown in Table 2. None of the AWS responded that they felt discriminated against in the disability interview for the disability quota (Q1). Moreover, 91.7% of AWS agreed that they felt reasonable accommodation was provided during the interview for the disability quota (Q2), and that the interview for the disability quota went well (Q3).

Table 2: Nine questions about employment quotas.

	Strongly agree (%) (1)	Agree (%) (2)	Neutral (%) (3)	Disagree (%) (4)	Strongly disagree (%) (5)	Mean (SD)
Q1	0	0	8.3	0	91.7	5 (0)
Q2	75	16.7	8.3	0	0	1.17 (0.39)
Q3	83.3	8.3	8.3	0	0	1.08 (0.29)
Q4	0	8.3	16.7	50	25	4 (0.85)
Q5	41.7	58.3	0	0	0	1.58 (0.51)
Q6	83.3	16.7	0	0	0	1.08 (0.29)
Q7	0	0	8.3	41.7	50	4.58 (0.51)
Q8	0	8.3	0	8.3	83.3	4.66 (0.89)
Q9	91.7	8.3	0	0	0	1.08 (0.29)

In terms of discrimination at their workplace, 8.3% of AWS felt discriminated against, whereas 75% of AWS did not feel discriminated against (Q4). All AWS agreed that they felt reasonable accommodation was provided at their workplace (Q5), and that it was beneficial to be employed through the disabled quota (Q6).

None of the AWS responded that it was possible to join the company they are currently employed at without using the disability quota (Q7). In terms of salary, 91.7% of AWS disagreed that their salary was lower than that of individuals hired through the general quota (same work, same years of service) (Q8). All AWS agreed that obtaining a disability certificate (Q9) was beneficial.

Discussion

This study found that AWS employed through the disabled quota received reasonable accommodation, faced lesser discrimination, and had higher job satisfaction. AWS consider job interviews as significantly difficult due to the risk of their abilities being underestimated by interviewers who they meet for the first time. Even if an applicant who does not significantly stutter in daily life stutters during a job interview, the interviewer may laugh or be rude toward the applicant and reject him/her due to the stuttering. AWS lose confidence and stop searching for employment when they are treated discriminatorily in job interviews. However, applicants were not discriminated against during interviews arranged through disability quotas. Thus, AWS were able to receive a secure interview from the interviewer. Reasonable accommodation was provided, such as waiting during the interview even if it took the applicant a long time to speak. All interviewees in the disabled quota frame were well satisfied.

In 2018, individuals with mental disabilities were added to the employment quota for individuals with disabilities, which formerly prescribed the employment of individuals with physical disabilities and individuals with intellectual disabilities. Companies are actively looking for job seekers in the disability quota. Companies that do not meet the required number of individuals with disabilities must pay a monthly levy of 50,000 yen per person [24]. The attitude of companies is changing toward those who stutter due to the contribution of SDGs and the increasing awareness and social networking sites. Participation in the disability quotas requires a disability certificate that cannot be obtained without the cooperation of medical doctors. Therefore, it is necessary to continue promoting stuttering awareness programs for medical doctors in Japan.

In this survey, all AWS received reasonable accommodation at their workplace. Specifically, participant nos. 7 and 10 were assigned to a department that communicates with a significantly limited number of individuals within the company, rather than a

department that interacts with many customers outside the company. Due to severe stuttering, participant no. 12 was allowed to use automatic reading software instead of his own voice in the work progress reports. Most participants (participants nos. 1-2, 5-12) had reduced telephone work. Since all participants were hired through the disability quota, the personnel department dedicated a fixed time to confer with them regarding work. Only participant no. 12 faced discrimination at work during his second year of work since the participant's new superior was intolerant of stuttering. The participant's new superior reprimanded him at times for not being able to speak clearly, and he had a recurrence of depression. As a result, he was assigned to a different department after taking a leave of absence. In general, all participants were good at working in the disabled quotas.

All participants felt that the company they were employed at would not have been hired unless they applied through the disability quota. The percentage of private sectors that meet the disability quota is 48.8%, whereas 51.2% of companies do not meet the disability quota [24]. In general, stuttering is considered to be a handicap. However, in the disabled person frame, all people have a disability of some nature. Therefore, they were not necessarily rejected because of stuttering. Many participants in this study were offered a job at the first interview in the disabled quota. Many people were able to regain self-confidence. We found that the utilization of the disability quota is useful as a safety net system for the employment of AWS.

We found that most participants hired in the disability quota were not receiving lower wages than those hired through the general quota. This result shows that equal pay for equal work among regular workers and regular disabled or non-regular disabled workers by the Amendment Law for Promotion of Employment of Persons with Disabilities since 2016 and the amendment of the Fixed-term Part-Time Employment Act since 2020 was ensured. The salary of participant no. 12 was lower than that of regular workers since he was hired before those laws were enacted.

All participants were satisfied with the disability certificate. Certainly, some AWS working in the general quota said, "People who stutter are not disabled!" and "I do not want a disability certificate!" However, the problems of some AWS who face difficulties during their job search are known through the media, and the merits of AWS working in the disabled frame are recognized. To attend an interview and get a job in the disabled frame, AWS needs to obtain a disability certificate from a medical doctor. Many medical doctors have no experience providing disability certification for AWS, which is a new problem. Therefore, disability certificate awareness has to be promoted among medical doctors.

The criteria by which AWS can be interviewed using

disabled quotas vary from country to country. There are quotas for persons with disabilities in more than 100 countries, but these quotas are utilized in only 33 countries that have adapted the levy system. In countries with a levy system, there will be a mutually beneficial relationship between companies seeking to employ individuals with disabilities and AWS seeking employment. The 33 countries that offer disability quotas are Austria, Algeria, Belarus, Bosnia Herzegovina, Cambodia, China, Czech Republic, Egypt, France, Germany, Hungary, Iraq, Japan, Kuwait, Lithuania, Mauritius, the Netherlands, Pakistan, Panama, Peru, Poland, Romania, Russia, Serbia, Slovakia, South Korea, Syria, Tunisia, Turkey, Uganda, Ukraine, Uzbekistan, and Venezuela [24]. Determining which professionals or institutions can use the disability quota in these countries will lead to feasibility.

Limitations

This study has some limitations. First, only 12 participants were examined in this study. In Japan, the employment of AWS in the disabled employment quota began at the earliest in 2018, and the number of AWS employed in the disabled employment quota is still small. In general, the more severe the stuttering, the harder it is to get a job in the general quota. We did not compare AWS with controls because it was difficult to find employers of the same age and severity hired through the general quota. By comparing AWS in the general quota with those in the disabled quota, we will be able to determine the true usefulness of employment in the disabled quota in the workplace.

Second, most participants in this study who stutter have been employed at the company for only a few years. Therefore, it is difficult to describe the promotion. It is legally difficult for a company to dismiss employees with disabilities to hire regular employees in Japan [28]. Therefore, in Japan, employees are promoted after working for a long time [29], and wages are often paid in seniority order. Participant no. 12 changed jobs in the disabled quota because he had been discriminated against at his previous company due to his stuttering, but there was a reduction in his salary.

Conclusion

We have found that for AWS seeking employment, interviews and employment arranged through the disability quota can be a safety net that can provide reasonable accommodation without discrimination.

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References

1. Battle DE (2013) Diagnostic and Statistical Manual of Mental Disorders (DSM). *Codas* 25: 191-192.
2. Blumgart E, Tran Y, Craig A (2010) An investigation into the personal financial costs associated with stuttering. *J Fluency Disord* 35: 203-215.
3. Bricker-Katz G, Lincoln M, Cumming S (2013) Stuttering and work life: An interpretative phenomenological analysis. *J Fluency Disord* 38: 342-355.
4. Bricker-Katz G, Lincoln M, McCabe P (2010) Older people who stutter: Barriers to communication and perceptions of treatment needs. *Int J Lang Commun Disord* 5: 15-30.
5. Craig A, Blumgart E, Tran Y (2009) The impact of stuttering on the quality of life in adults who stutter. *J Fluency Disord* 34: 61-71.
6. Craig AR, Calver P (1991) Following up on treated stutterers: Studies of perceptions of fluency and job status. *J Speech Hear Res* 34: 279-284.
7. Crichton-Smith I (2002) Communicating in the real world: Accounts from people who stammer. *Int J Lang Commun Disord* 27: 333-351.
8. Gerlach H, Chaudoir SR, Zebrowski PM (2021) Relationships between stigma-identity constructs and psychological health outcomes among adults who stutter. *J Fluency Disord* 70: 105842.
9. Hayhow R, Cray AM, Enderby P (2002) Stammering and therapy views of people who stammer. *J Fluency Disord* 27: 1-16.
10. Imura D, Miyamoto S (2021) Public attitudes toward people who stutter in the workplace: A questionnaire survey of Japanese employees. *J Commun Disord* 89: 106072.
11. James SE, Brumfitt SM, Cudd PA (1999) Communicating by telephone. *J Fluency Disord* 24: 299-317.
12. Klein JF, Hood SB (2004) The impact of stuttering on employment opportunities and job performance. *J Fluency Disord* 29: 255-273.
13. Klompas M, Ross E (2004) Life experiences of people who stutter, and the perceived impact of stuttering on quality of life: Personal accounts of South African individuals. *J Fluency Disord* 29: 275-305.
14. McAllister J, Collier J, Shepstone L (2012) The impact of adolescent stuttering on educational and employment outcomes: Evidence from a birth cohort study. *J Fluency Disord* 37: 106-121.
15. Palasik S, Gabel R, Hughes C, Rusnak E (2012) Perceptions about occupational experiences by people who stutter. *Perspect Fluency Disord* 22: 22-33.
16. Plexico LW, Hamilton MB, Hawkins H, Stephen Erath (2019) The influence of workplace discrimination and vigilance on job satisfaction with people who stutter. *J Fluency Disord* 62: 05725.
17. Rice M, Kroll K (1994) A survey of stutterers' perceptions of challenges and discrimination in the workplace. In: CW Starkweather, HFM Peters, International Fluency Association. Proceedings of the First World Congress on Fluency Disorders, Munich, 559-562.
18. Rice M, Kroll R (1997) Workplace experiences of people who stutter. *J Fluency Disord* 22: 140.

19. Rice M, Kroll R (2006) The impact of stuttering at work: Challenges and discrimination. Paper presented at the International Stuttering Awareness Day Online Conference, 2006. Mankato, MN.
20. Alhazo M, Blomgren M, Roy N, Awwad MA (2017) Discrimination and internalised feelings experienced by people who stutter in Jordan. *Int J Speech Lang Pathol* 19: 519-528.
21. Boyle MP (2013) Assessment of stigma associated with stuttering: Development and evaluation of the Self-Stigma of Stuttering Scale (4S). *J Speech Lang Hear Res* 56: 1517-1529.
22. Ham RE (1990) What is stuttering: Variations and stereotypes. *J Fluency Disord* 15: 259-273.
23. Constantino CD, Manning WH, Nordstrom SN (2017) Rethinking covert stuttering. *J Fluency Disord* 53: 26-40.
24. International Labour Organization (ILO) (2019) Promoting employment opportunities for people with disabilities: Quota schemes.
25. Kikuchi Y (2018) Two cases of stuttering patients with a physical disability certificate. *Jibi to Rinsho* 64: 72-75.
26. Kikuchi Y (2021) A case of stuttering patient who obtained a mentally disability certificate and was able to get a job. [in Japanese]. *Jibi to Rinsho* 67: 280-283.
27. Liebowitz MR (1987) Social phobia. *Mod Probl Pharmacopsychiatry* 22: 141-173.
28. Sugeno, K (2014) Dismissals in Japan, part one: How strict is Japanese law on employers? *Japan Labor Review* 11: 83-92.
29. Ono H (2010) Lifetime employment in Japan: Concepts and measurements. *J Jpn Int Econ* 24: 1-27.