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PAR ERIKA LEFEBVRE

UNE ÉTUDE EXPLORATOIRE DES STRATÉGIES UTILISÉES PAR LES
GESTIONNAIRES AVEC UNE DYSLEXIE DANS L'EXPRESSION DU LEADERSHIP

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UNE ÉTUDE EXPLORATOIRE DES STRATÉGIES UTILISÉES PAR LES
GESTIONNAIRES AVEC UNE DYSLEXIE DANS L'EXPRESSION DU
LEADERSHIP

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Cette thèse est rédigée sous la forme d'articles scientifiques, comme il est stipulé dans les règlements des études de cycles supérieurs (Article 5.11 du Règlement facultaire des études de 2e et 3e cycles et dans les Règles institutionnelles pour les mémoires et thèses par articles) de l'Université de Sherbrooke. L'approbation pour produire une thèse par articles a été octroyée à Erika Lefebvre par la personne responsable du doctorat professionnel en psychologie et par le vice-décanat aux études supérieures et à la recherche. Le nom de la directrice de recherche apparaît donc comme co-auteur des articles soumis pour publication.

SOMMAIRE

La présente étude qualitative et exploratoire a pour objet d'approfondir la compréhension des stratégies utilisées par des gestionnaires avec une dyslexie dans l'expression de leur leadership. Le mot stigmatisation est souvent associé à la santé mentale et, d'après la Commission de la santé mentale du Canada (2013), il a des effets plus considérables sur la vie des personnes souffrant d'une maladie mentale que la maladie elle-même. Bien qu'elle ne soit pas une maladie mentale, la dyslexie constitue une incapacité invisible de trouble d'apprentissage, et de récentes recherches effectuées au Canada ont montré que, par rapport à ceux qui n'ont pas de troubles d'apprentissage, deux fois plus d'adultes qui en souffrent disent connaître des épisodes de détresse, de dépression, de troubles anxieux, de pensées suicidaires ou encore doivent consulter des professionnels de la santé mentale. Parmi les adultes chez lesquels la dyslexie a été diagnostiquée durant l'enfance, 85% choisissent de ne pas dévoiler leur état à leur employeur à cause de la stigmatisation. Bien que d'abondantes recherches aient été conduites sur l'impact de la dyslexie et d'autres troubles d'apprentissage en milieu de travail, très peu portent sur le lien entre la dyslexie et le leadership. La présente recherche a pour objectif de déterminer les stratégies qu'utilisent les gestionnaires avec une dyslexie (réflexion stratégique, actions, comportements efficaces) pour exprimer leur leadership, ainsi que de déterminer les types de mesures d'adaptation requis pour leur permettre de progresser comme dirigeants au même rythme que leurs pairs qui n'ont pas une dyslexie.

Les résultats de la présente recherche pourront aussi aider les psychologues organisationnels qui travaillent avec des gestionnaires avec une dyslexie en ce qui a trait au développement du leadership, et au recrutement. Des entrevues semi-structurées ont été menées auprès de cinq gestionnaires de la Fonction publique du Canada atteints de dyslexie. Les données recueillies ont

fait l'objet d'une analyse thématique qualitative. L'analyse thématique a permis de cerner les stratégies utilisées dans l'expression du leadership chez les gestionnaires avec une dyslexie participants à la présente étude.

Mots clés: gestionnaires, stigmatisation, santé mentale, lieu de travail, coaching, stratégies de leadership, inaptitude, accessibilité, adaptation, expression du leadership, dyslexie.

Résumé

La présente recherche a pour objectif de déterminer, d'une part, les stratégies particulières aux gestionnaires avec une dyslexie qui leur permettent d'exprimer leur leadership et, d'autre part, les types d'accommodements nécessaires qui vont leur permettre de progresser comme leader au même rythme que leurs pairs qui n'ont pas la dyslexie.

Selon Gerber & Price (2008), 85 % des adultes dont la dyslexie a été diagnostiquée et qui ont profité de mesures d'adaptation connexes au cours de leur enfance, refusent de révéler leur état à leur employeur ou de recourir aux moyens à leur disposition car ils éprouvent de la honte et craignent que leur carrière ne s'en trouve entravée.

Problématique

Si de nombreux textes ont abordé l'effet de la dyslexie chez les adultes en milieu de travail, peu d'ouvrages, voire aucun aborde les liens entre le leadership et la dyslexie en milieu de travail (Leather et al. 2011). La dyslexie affecte négativement et de façon croissante tout au long de la vie, à peu près tous les domaines des activités quotidiennes au travail (De Beer et coll., 2014). Ceci peut empêcher un gestionnaire avec une dyslexie d'exercer pleinement son rôle de leader.

L'analyse documentaire réalisée n'a révélé qu'une seule étude comparative qui liait la dyslexie et le développement de stratégies d'adaptation et qui a examiné l'hypothèse selon laquelle les entrepreneurs avec une dyslexie développent efficacement des stratégies d'adaptation pour gérer leurs points faibles, (Logan, 2009).

Stratégie de collecte de données

La présente recherche s'appuie sur une méthode qualitative exploratoire réalisée à l'aide de l'analyse thématique. Le cadre de la présente recherche s'inspire d'un paradigme constructiviste qui comprend une position relativiste selon laquelle, pour les gestionnaires avec une dyslexie, il

existe de multiples réalités construites infléchies par la situation dans laquelle ils se trouvent (Ponterotto, 2005). Ainsi un échantillonnage par choix raisonné où des cas riches en renseignements ont été sélectionnés pour répondre aux questions d'importance centrale qui traduisent le phénomène d'intérêt (Patton, 2002).

Participants

Les 5 participants à la présente étude provenaient de la Fonction publique du Canada. Il s'agissait de gestionnaires, hommes et femmes avec une dyslexie, de 35 à 65 ans qui pouvaient s'exprimer en anglais, et qui supervisaient au moins un employé. Les participants ont été soumis à un dépistage de la dyslexie à l'aide du test psychométrique *Bangor Dyslexia Checklist (Questionnaire d'évaluation de Bangor)* (Appendice C). Ceux-ci ont aussi subi le test *Adult ADHD Self-Report Scale Screener (ASRS-v1.1) Symptom Checklist (Échelle d'autoévaluation du Trouble déficitaire de l'attention avec hyperactivité chez l'adulte (ASRS-V1.1))* (Appendice C), pour le dépistage du Trouble déficitaire de l'attention avec hyperactivité (TDAH). Les participants ayant obtenu un résultat positif au test du TDAH ont été exclus de l'étude.

Méthodes de collecte et de traitement des données

La présente étude a utilisé la méthode de l'entrevue semi-structurée d'une heure (Appendice F). Celle-ci a permis d'étudier en profondeur l'expérience unique de chaque gestionnaire avec une dyslexie dans l'expression de leur leadership (Paillé, 1996). Quatre entrevues ont été conduites en personne et une a été réalisée par téléconférence.

L'analyse était guidée par une approche inductive (Patton, 1990) plutôt que théorique. L'analyse thématique des données permet de déterminer et d'analyser des tendances (thèmes) tirées des données et d'en rendre compte (Braun & Clarke, 2006). Elle a contribué à la détermination des stratégies qu'utilisent les gestionnaires pour exprimer leur leadership et des mesures d'adaptation

nécessaires pour surmonter les obstacles, en facilitant des interprétations psychosociales des phénomènes (Braun & Clarke, 2006).

Quatre principaux thèmes ont émergé des données recueillies : (1) l'expression du leadership créatif, (2) l'impact de la dyslexie sur la progression de la carrière, (3) le rôle de l'accommodement dans la progression de la carrière et (4) des environnements favorables, inclusifs et accessibles, essentiels pour l'avancement professionnel.

Conclusion

Ce mémoire doctoral par articles comprend deux articles qui ont été proposés à des revues savantes pour publication. Le premier article porte sur les résultats de l'analyse de la littérature relative à l'expression du leadership chez les gestionnaires avec une dyslexie. Étant donné le constat que peu d'études ont abordé le sujet du leadership et de la dyslexie, le texte propose que l'approfondissement de l'étude de l'expression du leadership devrait favoriser une meilleure inclusion des gestionnaires avec une dyslexie, ce qui leur accorderait les mêmes opportunités de carrières qu'aux gestionnaires sans dyslexie.

Le deuxième article, quant à lui, présente les résultats et l'analyse de la collecte de données. Il élabore sur une discussion plus approfondie des stratégies utilisées par les gestionnaires avec une dyslexie, des aménagements précis dont ils ont besoin pour progresser dans leur carrière au même rythme que leurs pairs n'ont pas la dyslexie et de l'impact de la dyslexie sur la progression de carrière des gestionnaires avec une dyslexie.

Cette étude permet de conclure qu'une culture de leadership consciemment inclusive favorisant un environnement de travail favorable et accessible est essentielle à la progression de carrière en leadership des gestionnaires avec une dyslexie dans la fonction publique du Canada.

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As a manager who has dyslexia working in the Public Service this journey as a researcher, through academia and Public Service has been charged, exciting and very, very challenging. It was at times an overwhelming, exhausting undertaking. Overcoming the obstacles resulting from my dyslexia, fighting for accommodation at school and at work, until that day when things finally came together, leaning in, becoming one, carrying this gently and figuring it out just like the participants in this study.

Dedication

This doctoral memoir is dedicated to husband William Heath for his unwavering support; to my sons Devon and Luca Lefebvre-Heath who I am so proud of (I love you to the moon and back) to my father Jean Pierre Lefebvre; a lifelong learner and self-made man who taught me the value of an education and to persist in the face of adversity; to my late mother Audrey Leslie Lefebvre; to my late father-in-law Gordon Heath, PhD and to my late step-mother Muriel Beaulieu who told me I could do it and to never give up.

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INTRODUCTION

The intention of this research was to determine what strategies (strategic thinking, decision making, actions, and effective behaviors) if any, that managers who have dyslexia use to express their leadership that managers without dyslexia don't use and what types of accommodation, if any, are required to enable them to progress as leaders at the same pace as their peers who do not have dyslexia.

In the Canadian Public Service, there is duty to accommodate employees in order to remove discriminatory barriers related to the thirteen prohibited grounds of discrimination, up to the point of undue hardship to the employer, one of which is disability (Canadian Human Rights Commission, 2020). According to D'Intino (2017) accommodations are specific circumstances, services, or tools that are applied in instructional or work settings in order to allow individuals with disabilities or academic challenges, including second-language learners, individuals with visual or auditory impairments, and students with learning disabilities including dyslexia, to perform to their highest potential.

Since the leadership expression strategies used by managers with dyslexia have not been widely researched to date, a qualitative exploratory study using thematic analysis (Braun & Clarke, 2006) was chosen. This methodology allowed us to identify and describe nuances in relationships, frameworks, adaptation measures, interdependencies (at the organizational level, team dynamics, relationships with peers and superiors) complexities and peculiarities of how managers with dyslexia express their leadership in the workplace (Patton, 2002).

Studies on dyslexia contain contradictory information about its definition, prevalence and incidence. As such the definition of dyslexia continues to evolve with new research in the field of neuropsychology (McCloughlin, Leather & Stringer, 2002). Subsequently, research on the prevalence and incidence of diagnosed dyslexia shows significant variability in the rates, with

results ranging from 5 to 17.5% (Wysocka, Lipowska & Kilikowska, 2010). The criteria established for determining these rates depend on the definition of the concept of dyslexia adopted. As the definitions are numerous in the literature, it is difficult to know the exact prevalence rates (De Beer, Engels, Heerkens & Van der Klink, 2014). This variability of prevalence rates identified by Wysocka, Lipowska & Kilikowska's (2010) highlights how important scientific rigor was when choosing a definition of dyslexia in anticipation of the current research. Several definitions present dyslexia exclusively as an impairment in reading and writing (White & Miller, 1983) and do not consider the hypothesis that dyslexia may be a heterogeneous disorder with distinct subtypes of disorders that are composed of the information processing processes affected such as auditory sequencing, spatial visual-motor integration, short-term memory, visual-auditory integration (Lloyd, Kauffman & Hallahan, 1980). This information reinforces the importance of choosing a definition that relies on homogeneous samples of participants who have dyslexia (White & Miller, 1983) as it allows researchers to understand and describe dyslexia in depth and develop a definition that is more widely transferable.

The following definition of dyslexia was selected for the current study because it is one of the most scientifically relevant since it is evidence-based, collected from more than 20 years of research using methodologies consistent with scientific criteria (Shaywitz, 2003). The International Association of Dyslexia also adopted it in the wake of the Definition Consensus Project (Dickman et al., 2002) despite the convincing conclusion of Mapou (2009) that the absence of consensus on a definition of dyslexia, particularly for adolescents and young adults, is problematic.

This definition of dyslexia from Lyon, Shaywitz & Shaywitz (2003) remains the most frequently cited, even for the adults:

It is a specific learning disorder whose origins are neurobiological. Dyslexia is characterized by difficulties in the exact or fluent recognition of words as well as limited orthographic skill and decoding capabilities. These difficulties typically result from the often unexpected deficit in the phonological component of language compared to other cognitive abilities which affects the ability of an individual to speak, read, spell and often, learn a second language. (Lyon, Shaywitz & Shaywitz, 2003, p.2).

Dyslexia is not just a problem of reading; it is a language disorder, characterized by difficulties in the auditory or visual processing of language-based information, problems of oral proficiency, short-term memory and working memory, sequencing and directionality, numeracy skills and certain management functions such as organizational skills and time management (Leather, Hugh, Seuss & Everatt, 2011; Lyon, Shaywitz & Shaywitz, 2003). As such dyslexia may have an impact on a manager's ability not only to express leadership but also to progress in their leadership careers at the same rate as their peers who do not have dyslexia.

Dyslexia is sometimes referred to as a hidden disability but those who embrace the social model of disability see it as a neurobiological variation. Oliver (2009) presents a working definition of the social model of disability as a disadvantage or restriction of activity caused by a contemporary social organization, which takes little or no account of people who have impairments and thus excludes them from the mainstream of social activities. Based on this definition, problems experienced by managers with dyslexia are not due to this biological variation, but rather education and employment systems that are not equipped to deal with dyslexia, which systematically exclude this minority group due to a lack of accessible learning and work environments. The difficulties managers with dyslexia experience in education and in employment are due to structural/systemic inequalities or disabling barriers such as the need to self-identify as having a disability for selection processes, lack of accessible learning activities or accommodation (Riddick, 2001; Mortimore & Dupree, 2008; Macdonald, 2009; Campbell, 2013). It is interesting to note that since our research

began, there has been a global shift away from disability management towards inclusion and away from accommodation towards accessibility. An inclusive work environment facilitates the use of strategies and accommodations to overcome challenges created by dyslexia (Illingworth, 2005).

Some revealing numbers are troubling, including the fact that 85% of adults diagnosed with dyslexia who have benefited from accommodation during childhood schooling choose not to disclose their diagnosis to their employer, nor do they request or use accommodations available to them because they are ashamed and fear that the stigma associated with dyslexia will be career limiting (Gerber & Price, 2008). The performance and self-esteem of employees with dyslexia are greatly affected by the environment in which they work, as evidenced by the greater incidence of dyslexia amongst the self-employed as opposed to the employed population in the United States and the United Kingdom (Logan, 2009). Employees who have dyslexia are often perceived as being easily distracted, lazy and inattentive to detail, which is ironic given that it has been highlighted in the literature that they work longer, harder and with more disciplined exactitude in order to achieve the same results as their peers who do not have dyslexia (Mcloughlin et al., 2002).

De Beer et al. (2014) conducted a qualitative meta-summary of 1895 studies on the factors that influence the participation of adults with dyslexia at work. The purpose of their study was to identify hindering and facilitating factors associated with dyslexia amongst adults who have dyslexia in the workplace. They found that out of the 318 hindering and facilitating factors extracted and classified, nine of them were the most frequently reported by participants. Of these nine factors, one relates to academic difficulties (hindering), two to job retention and job satisfaction (hindering), three to dyslexia (hindering) and, finally, three other factors of compensation and accommodation strategies (facilitating). This study is relevant to our research because it underscores the fact that dyslexia generally has a negative impact on work performance

in virtually every area of daily activity and that this impact appears to increase overtime throughout life. The literature review by De Beer et al. (2014), establishes that dyslexia affects the participation of adults in work (finding and keeping a job, successfully navigating the competitive process for promotions and job postings) in ways that may prevent a manager who has dyslexia from fully expressing his or her leadership and progressing in their leadership career at the same rate as their peers who do not have dyslexia. As such, it is paramount for a manager who has dyslexia to be proactively strategic in overcoming unconscious bias with conscious action (Learmond & Mitchell, 2010) by capitalizing on their strengths and not allowing their learning exceptionalities to derail their careers.

Managers with dyslexia may face unique barriers in expressing their personal leadership in the face of unconscious bias, stigma and self-stigmatization. Dudley (2000) defined stigma as “stereotypes or negative views attributed to a person or groups of people when their characteristics or behaviors are viewed as different from or inferior to societal norms.” (p. 449). Indeed, the Mental Health Commission of Canada (2013) states that stigma can have a greater impact on those with hidden disabilities than the disability itself. Stigma in and of itself is a complex construct made up of various dimensions: concealability, course, disruptiveness, peril, origin and aesthetics (Feldman & Crandall, 2007; Jones et al., 1984) and three levels: social stigma, self-stigma and health professional stigma (Ahmedani, 2011). Self-stigma was of particular interest in our study as it was found to contribute to non-disclosure of dyslexia by the participants in the workplace. According to Corrigan (2007) self-stigma can have a harmful impact in subtle unexpected ways on the self-esteem and self-efficacy of individuals who have dyslexia, which may change the way they behave or present themselves.

Managers who have dyslexia excel in strategic, big picture, visual thinking which helps them solve problems from a perspective others may not even see; they can quickly recognize information, mentally restructure concepts and processes that facilitate workplace innovation (McLoughlin, Fitzgibbon & Young, 1994; Reid & Kirk, 2001). These skills, combined with the perseverance, ambition and drive of people who have dyslexia to get the job done, further validates the potential merit they offer as leaders and the need to better understand them in order to create environments that build on these strengths (West, 1997).

While there is an appreciable amount of literature on the impact of dyslexia on adults in the workplace, there is very little, if any, evidence of the link between leadership expression and dyslexia in the workplace (Leather et al., 2011). Only one study of dyslexia in the workplace was found in the literature review. This study compared the incidence of dyslexia among entrepreneurs, corporate business managers and the general population. It found that 35% of US entrepreneurs had dyslexic traits compared to 1% of corporate managers and linked dyslexia with the development of coping strategies in entrepreneurs (Logan, 2009). The incidence of corporate managers with dyslexia seemed very low which raised questions about whether there are barriers in corporate environments that prevent employees with dyslexia from attaining management positions. In their book, *Adult dyslexia: A guide for the workplace*, Fitzgibbon and O'Connor (2002) suggested that successful employees who have dyslexia develop ways of controlling, coping and compensating for challenges caused by dyslexia. Examples of these strategies are, asking a trusted colleague to take notes at a meeting to compensate for challenges with working memory and note taking or getting a trusted colleague to check lists of figures for errors to compensate for challenges with numeracy. Logan (2009) suggests that strategies such as delegation used by entrepreneurs to compensate for a minor weakness on the one hand, frees them

up to focus on more important things like growing the business on the other and are therefore worth exploring further. Logan's (2009) study suggested that there is a need for a more in-depth exploration of these strategies and their influence (positive or negative) on the expression of leadership amongst managers who have dyslexia.

Given the importance of leadership for managers in today's work environment (Spisak et al., 2015) it is surprising that the expression of leadership is not one of the nine factors that hindered or facilitated work participation of adults who have dyslexia previously mentioned in this text (De Beer et al., 2014). In light of the absence of information on how managers with dyslexia express their leadership at work, our study aimed to close this knowledge gap.

Work in the public and private sectors is changing, as globalization leads to greater complexity (Learmond & Mitchell, 2010). While the management structure has evolved, flattened, and become less hierarchical, more horizontal and decentralized, the demands made on managers have also shifted (Spisak, O'Brien, Nicholson & Nigel, 2015). Spisak et al. (2015) emphasize that leadership practice is shifting from a hierarchical structure to a more relationship-based structure. Key drivers such as complexity, technology, demographics, accountability and austerity in a busy world will require of tomorrow's leaders greater collaboration, superior agility, greater engagement, smarter management, more innovation, flexibility and strategic thinking (Public Policy Forum, 2014).

It was once thought that the onus was on the manager who has dyslexia to proactively find strategies to overcome the often unconscious bias of their superiors and colleagues, by building on their strengths and taking the necessary steps to meet the challenges posed by these drivers in order to ensure that their learning differences did not impede their career progression (Learmond & Mitchell, 2010). The evolving governance structures that we are witnessing today are moving away

from disability management which requires self-disclosure in order for someone with a disability to qualify for accommodation, towards creating consciously inclusive and accessible work places, proposing a mutual accountability approach on the part of organizations and individuals especially for employees with hidden disabilities (Santuzzi et al., 2019).

In our study, we investigated how managers who have dyslexia (a hidden disability) express their leadership, the strategies they used and the accommodations they needed to progress in their careers at the same pace as their peers who did not have dyslexia. In order to adequately analyze the resulting data a clear understanding of leadership itself and the leadership development of managers in the Canadian Public Service who have dyslexia was required.

Leadership and dyslexia have much in common, in that they are both difficult to quantify and polysemic in their definition. The definition and understanding of leadership, like that of dyslexia, is evolving. Therefore, there was, once again, as was the case for the definition of dyslexia, a need for scientific rigor in the selection of a definition of leadership in anticipation of the current study.

There are many theories surrounding the process of leadership: traits, competencies, values, styles etc. (Khan, Khan, Qureshi, Ismail, Rauf, Latif & Tahir, 2015; Nanjundeswaraswamy & Swamy, 2014). Whether a leader embraces a democratic, affiliative or authoritative leadership style (Goleman, 2006) the general consensus is that leadership is very much contextual, begins with an inner journey (Kouzes & Posner, 2011) built upon a foundation of emotional intelligence; an individual capacity for self-awareness, self-regulation, motivation, empathy and social skill (Goleman, 1998).

For the purpose of this study, the following definition of leadership was chosen: “Leadership is an adaptive process where one or more individuals emerge as a focal point to influence and coordinate behavior for solving social challenges posed by dynamic physical and cultural environments.” (Hogan, Curphy & Hogan, 1994; King, Johnson & van Vugt, 2009; Nicholson, 2013; van Vugt, 2006; van Vugt et al., 2008, p. 292).

Looking at leadership as a biologically and culturally adaptive process that serves social systems by coordinating and directing effort (van Vugt et al., 2008) provided us with a broader lens of leadership that fit best with the exploratory nature of our study. This definition of leadership underlines the relationship-based contextual leadership structure that is emerging in modern organizations today. Leadership in the 21st Century presupposes a reciprocal relationship that must take into account the dynamics of the relationship and the emergence of insight that allows managers to keep in touch with their full potential and internal resources (Kouzes & Posner, 1993; Ménard, 2013).). In other words, as Short (1998) puts it, leadership is about learning in relationship to foster a synergistic relationship. Research shows that effective leaders are aware of the effect they have on others and vice versa. They know that to achieve results, they must first build trust in order to understand and fully explore all possibilities with their teams before taking action (National Managers Community, 2003).

The current study on the expression of leadership in managers with dyslexia was conducted within the Canadian Public Service, an environment accessible to the researcher, a public servant herself and a manager who has dyslexia. The participants were managers and executives who have dyslexia. They were men and women who could speak English and who supervised at least one employee. No maximum number of employees was set and participants were selected regardless of whether or not they had financial management responsibilities. They were between 35 and 65

years old. The managers selected for the study were screened for common markers of dyslexia using the Bangor Dyslexia Checklist (Appendix C).

Best practices found in the literature are to screen all participants for dyslexia in order to identify potential comorbidities, confirm the dyslexia and identify or eliminate other disabilities with a presentation similar to dyslexia (Logan, 2009). Based on this result, we chose to screen for dyslexia in our study. Indeed, screening for dyslexia allowed the researcher to eliminate other learning exceptionalities that may be related to dyslexia as well as those caused by other conditions such as Attention Deficit Disorder with or without hyperactivity (ADHD) which has a high comorbidity with dyslexia (Logan, 2009). Previous studies have shown that, in order to be identified as someone with dyslexia, respondents had to indicate: difficulty in spelling and pronouncing long words, questions related to the capture and transmission of messages or sequencing problems and at least two other aspects such as difficulty with working memory or reading speed (Logan, 2009; Miles, 1993). In this study, similar selection criteria were applied because of their concordance with the definition of dyslexia adopted.

This research aimed to contribute to the advancement of knowledge about strategies that promote the expression of leadership by managers who have dyslexia by identifying themes from the experiences of participants. The results will inform organizational psychologists in their work on leadership development, talent acquisition and management, coaching and mentoring. Given the high levels of stress, depression and anxiety, frustration and low self-esteem found amongst adults in the workplace who have dyslexia (Boetsch et al., 1996; Hellendoorn & Ruijssenaars, 2000; Jensen et al., 1999; McNulty, 2003; Riddick et al., 1999; Undheim, 2003; Wilson et al., 2009) results of this study may help mental health professionals in workplace Employee Assistance

Programs become more informed on how to support managers with dyslexia when they encounter systemic barriers to their leadership career progression.

This study and future research may equip corporate and bureaucratic environments to be more proactive in creating inclusive and accessible workplaces for managers who have dyslexia. By addressing the under researched area of leadership expression by managers who have dyslexia, the intention is to decrease stigma through awareness and increase the desire to support and accommodate managers with dyslexia in their leadership development (Goyal & Patwardhan, 2018). In addition, it may catalyze workplaces to have employees with invisible disabilities or rather neurodiversity's like dyslexia included in organizational strategies for promoting inclusion, accessibility and diversity; albeit neurodiversity. Neurodiversity refers to significant differences in neurological ability such as being really strong at processing detailed images but having poor memory or having outstanding memory but struggling with comprehension (Weinberg & Doyle, 2017). This doctoral memoire includes two articles that have been proposed for publication in scholarly journals. The first article submitted to the Journal of Workplace Behavioral Health, presents the results of the literature review conducted as a precursor to this empirical study. This article highlights the fact that the expression of leadership by managers who have dyslexia is an under-studied area, the knowledge of which needs to be deepened. The second article was submitted to the Journal of Leadership and Organizational Studies (Appendix I submission evidence). It presents the methodology, results of our research, a discussion on the strategies used by managers who have dyslexia to express leadership and the accommodations they need to progress in their careers at the same pace as their peers who do not have dyslexia and a conclusion on the impact of dyslexia on their leadership career progression..

Management in the Public Service of Canada today comes with its own unique set of challenges that all managers in this environment experience and at times struggle with. Managers who have dyslexia face these same challenges and those inherent with living with dyslexia. Looking at what this may mean for their leadership careers is what this study is all about.

CHAPTER 1

LEADERSHIP EXPRESSION BY MANAGERS WITH DYSLEXIA AN UNDER-RESEARCHED AREA: A LITERATURE REVIEW

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Abstract

The objective of this paper is to discuss the results of a literature review conducted as a precursor to an exploratory qualitative study on the leadership strategies used by managers who have dyslexia to express their leadership and the accommodations they may need. Compelling arguments will be presented as to why more attention should be given to this under researched area which can serve organizations to better support and develop leadership potential amongst those with hidden disabilities. The word stigma is often associated with mental health and according to the Mental Health Commission of Canada (2013) stigma has a greater impact on the lives of people with mental illness than the disease itself. Although not a mental illness, dyslexia is an invisible disability and recent research in Canada has shown that, compared to those without a learning disability, twice as many adults who have learning disabilities say they experience episodes of distress, depression, anxiety disorders, suicidal thoughts or consult with mental health professionals. Among adults in whom dyslexia was diagnosed in childhood, 85% chose not to disclose their condition to their employer because of stigma for fear it would be career limiting. Although there has been some research on the impact of dyslexia and other learning disabilities in the workplace, very little research has focused on the relationship between dyslexia and leadership expression. Discussion of hindering and facilitating factors associated with work participation in managers who have dyslexia will be examined in an attempt to identify the strategies they used to express leadership and accommodations needed, if any. These strategies and accommodations are associated with enabling managers who have dyslexia to progress in their leadership careers at the same pace as their peers who do not have dyslexia.

Keywords: managers, stigma, mental health, work place, coaching, leadership strategies, disability, accessibility, accommodation, leadership expression, dyslexia.

Introduction

Being a manager in the Canadian Public Service comes with challenges inherent to the role and shared by all managers; imagine dealing with those challenges while at the same time navigating the ones that result from living with dyslexia. This paper aims to examine the findings of a literature review on leadership expression and dyslexia in order to find out more about this under researched area. Investigating the literature served to frame more specifically the existing gaps encompassing challenges experienced by managers with dyslexia. Indeed, the 73% of individuals with dyslexia who do not disclose, fear repercussions on their careers such as discrimination, non-promotion and a need to self-justify why they should remain in a position (Hewlitt, Cooper & Jameson, 2018). Yet, it is known that healthy workplaces which consist of high employee engagement and high performance celebrate and support diversity (Cheruvellil, Soranno, Weathers, Hanson, Goring, Filstrup & Read, 2014; Spinks & Moore, 2007).

The proposed study for which this literature review was conducted, is particularly timely since the release in 2013 of the Canadian standard that presents thirteen psychosocial factors for psychological health and safety in the workplace (Kalef, Rubin, Malachowski & Kirsh, 2016) and the Accessible Canada Act which received royal assent in 2019 (Employment & Social Development, 2020). Both the standard and the Act create new challenges in human resources management in terms of the inclusion of those with hidden disabilities in order to ensure their psychological health and safety in the workplace.

Methodology

The literature review was based on systematic research synthesis guided by the research question, “What strategies if any, are used by managers who have dyslexia to express their leadership that are not used by managers who do not have dyslexia and what are the

accommodations, if any, which managers who have dyslexia need to progress in their careers at the same rate as their peers who do not have dyslexia?”

The two principle variables upon which the literature review was based were dyslexia and leadership. However, when a significant gap in the literature linking these two variables was identified, additional variables including managers, stigma, mental health, work place, coaching, leadership strategies, disability, accessibility, accommodation and leadership expression were added.

In order to accomplish the literature review, thirteen on-line data bases including APA Psych Info, ERIC, Education Source, CINAHL, Medline, Social Work Articles, PubMed, Soc Index, Psych and Behavioral Sciences Collection, Psych Articles, Psych Critique, Psych Extra and Pascal were searched for empirical peer reviewed articles and other documents using the University of Sherbrooke’s data base research platform *EBSCOHost*, a tool for searching quality data bases and search features..

The inclusion criteria were qualitative and quantitative research between 1980 and 2020, on adults with dyslexia in the workplace (including academic settings), adults with dyslexia, and managers with dyslexia, leadership expression, disability management and mental health in the workplace. Given the literature review was non resultant for research specifically on dyslexia and leadership expression and that it was done as a precursor to an exploratory qualitative study, the only exclusion criteria were studies on children, with the exception of those on genetics, etiology and co-morbidity. These studies were included as they highlight the fact that dyslexia is non transient and neurobiological in nature. These studies also underscored dyslexia’s frequent comorbidity with attention deficit hyperactivity disorder (ADHD).

The search initially resulted in the retrieval of a total of 78 documents of which five articles were literature reviews. Indeed, in their article alone, de Beer, et.al. (2014) screened 1895 articles of which only 33 (17 qualitative & 16 quantitative) qualified for full-text review since they addressed factors influencing work participation of adults with dyslexia.

Table 1.1 presents a list of the documents reviewed as a precursor for the proposed research with the view of illustrating how the articles were coded.

Table 1.1

Codification of documents from literature review

Topic	Type of Document	Research Area	Context/Target Group	Methodology	Number of articles reviewed
Dyslexia/ learning disability	Peer reviewed Article (PRA)	Entrepreneurship/ Coping Strategies	Adult Entrepreneurs in the UK and US	Qualitative	2
	PRA	Work success	Adults in workplace	Quantitative	5
	PRA	Work success	Adults in workplace	Qualitative	29
	PRA	Psycho social experience	Students	Mixed methods	1
	PRA	Various	Adults in workplace	Literature reviews	5
Leadership	Unpublished PhD Dissertation	Leadership Coaching as a leadership development strategy	Coaches and middle to high level organizational leaders	Mixed methods	2
	Narrative articles	Leadership	Future	N/A	2
	Report	Leadership	Public Service of Canada	N/A	1
	Descriptive article	Leadership social intelligence	Schools	N/A	1
	PRA	Leadership styles	Managers in workplace	Literature review	1
	PRA	Leadership vs management	Managers in workplace	Qualitative	1

	PRA	Change management	Management	Quantitative.	1
	PRA	Sustainable leadership	Agriculture	Qualitative	1
	Book	Leadership	Work	N/A	1
	PRA	Leadership development	Work	Quantitative	1
Disability management	PRA	Employment laws, learning disability and accommodation	Canadian school system	Literature Review	1
	PRA	Accommodation/Definitions	Canadian school system	Qualitative	1
	PRA	Models of disability	Social medical	Descriptive	1
	PRA	Disability management strategies	Adults hidden disabilities workplace	Qualitative	1
	PRA	Changing workforce	Hospitals	Qualitative	1
	PRA	Overcoming barriers	Workplace	Qualitative	1
	PRA	Workplace learning	Adolescents with learning disabilities	Qualitative	1
Diversity	PRA	Neurodiversity	University	Qualitative	2
	PRA	Neurodiversity	Workplace	Mixed methods	1
Comorbidity ADHD and Dyslexia	PRA	Genetics	Longitudinal twin study	Quantitative.	3
	PRA	Assessment	Children	Quantitative	7
	PRA	Comorbidity	Children	Qualitative	2
Mental Health & Stigma	PRA	Impact	Adults in the workplace	Qualitative	3
	PRA	Resilience	Adults	Quantitative	1

A systematic review synthesis involves the retrieval, codification and integration of empirical information gleaned from the literature in order to come up with conceptual rather than statistical analysis of findings relevant to the phenomena of interest (Rothman, Damron-Rodriguez & Shenassa, 1994; Nalavany, Carawan & Rennick, 2010). Table 1.1 illustrates the breadth and complexity created when investigating two concepts that are not easily quantifiable; leadership and dyslexia.

Normally, in a literature review one, casts the net widely and then funnels or narrows down the number of articles to a few for full text analysis in order to draw a conclusion about the content in relation to the objective of the study. Given that no articles were found that

specifically looked at leadership expression and dyslexia the researcher had to broaden the field of inquiry in order to find any studies related to the research question. Initially, it was the study by Logan (2012) which demonstrated that leaders with dyslexia were more successful in entrepreneurial endeavors than in corporate environments that led the researchers to question why leadership expression was different in these two environments, whether or not there were systemic barriers to success in more bureaucratic, corporate environments like the Public Service of Canada and what strategies or accommodations helped leaders with dyslexia thrive. This article inspired the literature review and formulation of the problem framework.

Results and Discussion

Dyslexia

The research on dyslexia is filled with conflicting evidence and the definition of dyslexia continues to evolve with emerging neuro psychological research (Mcloughlin, Leather & Stringer, 2002). The criteria constructed to determine prevalence rates of dyslexia are influenced by the definition given to the concept of dyslexia; because there are so many definitions in the literature, it is difficult to determine exact prevalence rates (de Beer, Engels, Heerkens, & van der Klink, 2014). Indeed, in their study on the prevalence and incidence of diagnosed dyslexia, Wysocka, Lipowska & Kilikowska, (2010) found significant differences in prevalence and incidence rates with a variance in those rates ranging from 5% to 17.5%. This calls into question the reliability of these prevalence rates and emphasizes the need for scientific rigor when choosing a definition of dyslexia for research. Several definitions present dyslexia exclusively as impairments in reading and writing (White & Miller, 1983) and do not consider the hypothesis that dyslexia may be a heterogeneous disorder with distinct subtypes of disorders that are composed of sub-processes of affected information processing such as auditory sequencing, spatial video-motor integration,

short-term memory, vision-hearing integration (Lloyd, Kauffman & Hallahan, 1980). This information reinforces the importance of choosing a definition based on homogeneous samples of participants who have dyslexia (White & Miller, 1983). As a result of the aforementioned challenge relative to the plethora of definitions of dyslexia, we have selected the following definition because it is one of the most comprehensive, frequently cited and evidence-based definitions resulting from over 20 years of research:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction (Lyon, Shaywitz, & Shaywitz, 2003 p.2).

One the myths about dyslexia is that it is just a problem with reading. It is actually a disorder of language, characterized by difficulties with auditory and/or visual processing of language-based information, oral language skills, short-term and working memory, sequencing and directionality, number skills, and some executive functions like organizational ability and time management (Leather, Hogh, Seiss & Everatt, 2011; Lyon, Shaywitz & Shaywitz, 2003).

Comorbidity and Dyslexia

It is important to note that dyslexia is a highly comorbid disability which also frequently co-occurs with Attention Deficit Hyperactivity Disorder (ADHD) (Lindgren, Jensen, Dalteg, Meurling, Ingvar, Levander, 2002). In two studies conducted by Willcutt & Pennington (2000a & 2000b) it was found that 80% of children with ADHD and 60% of children with dyslexia met the criteria for at least one additional diagnosis. Indeed, it has been suggested that depending on the definitions used for ADHD and dyslexia, in samples of subjects with ADHD, the rate of dyslexia is between 18–45% (August & Garfinkel, 1990; Dykman & Ackerman, 1991; Mayes et al., 2000;

Semrud-Clickeman et al., 1992; Loo et al., 2004; Wisniewska, Baranowska & Wendorff, 2007) and in children, who have dyslexia 18–42% also met criteria for ADHD (Gayan et al., 2005; Gilger et al., 1992; Willcutt & Pennington, 2000b).

It can be assumed that these statistics are also present in an adult population given that the genetic influences are both substantial and highly stable (Wadsworth, DeFries, Willcutt, Pennington, Olson, 2015) and one cannot grow out of or be cured of dyslexia or ADHD (Undheim, 2009; Van Ijzendoorn & Bus, 1994). The level of resilience can be imagined for those adults who are able to overcome the obstacles and stigma frequently associated with the differences of possibly not just one but two challenging disabilities, when they transition into the workplace and into leadership positions.

Stigma in the Workplace

Revealing figures such as 85% of adults who were diagnosed with, and received accommodations for dyslexia in childhood, chose not to disclose this in the workplace or use accommodations available to them because they were ashamed and afraid it would be career limiting are shocking (Gerber & Price, 2008).

We know that the performance and self-esteem of employees who have dyslexia is greatly affected by the environment they are in, as evidenced by the higher incidence of dyslexia amongst entrepreneurs (who can self-accommodate and create their own supportive work environments) than in the corporate management population (where they are expected to work within the parameters set out by senior management) in the US and the UK (Logan, 2009). Employees who have dyslexia are often perceived as being distractible, not making enough effort or not working hard enough (Smith, Spark, Fawcett, Nicholson & Fisk, 2004). Yet, it has been demonstrated in the literature that they need to work longer and harder in order to achieve the same performance

level as peers who do not have dyslexia (McLoughlin et al., 2002). De Beer et al. (2014) performed a systematic review of 1895 studies on hindering and facilitating factors influencing work participation of adults with dyslexia that shed some light on specific factors that also hinder or facilitate their leadership development. They found the following 9 out of 318 factors to be reported most often by participants: persistent difficulties in reading, writing or spelling (hindering); mostly negative feelings about dyslexia (hindering); difficulty in getting and/or keeping a job (hindering); self-disclosure (hindering); the support of colleagues and employer (facilitating); attitudes and reactions to disclosure among co-workers (hindering); use of assistive technology in the workplace (facilitating); job satisfaction (hindering); negative impact of dyslexia (hindering) and acquired coping and compensation strategies (facilitating). It is clear from the De Beer et al. (2014) literature review that dyslexia influences the participation of adults in work in a mostly negative way. Given the importance of leadership for managers in today's global economy (Spisak et al., 2015) it is surprising that the expression of leadership is not one of the nine factors identified. This raises further questions about the influence that a diagnosis of dyslexia can have on leadership career progression and the expression of leadership.

Based on the research cited in the previous paragraph, stigma appears to be one of the most hindering factors on work participation of adults with dyslexia. The word stigma is often associated with mental health and, according to the Mental Health Commission of Canada (2013) stigma has a greater impact on the lives of people with mental illness than the mental illness itself. Dyslexia is an invisible disability (Nalavany, Carawan & Rennick, 2010) often not disclosed by employees when they enter the world of work (Hewlitt, Cooper & Jameson, 2018). Imagine how stressful it must be to accomplish job related tasks let alone progress in a leadership career while at the same time secretly dealing with dyslexia and the resulting frustration and stress. Therefore, it is hardly

surprising that a Canadian study highlighted the fact that, compared to those without a learning disability, twice as many adults who have learning disabilities report struggling with mental health problems (Wilson, Armstrong, Furrie & Walcott, 2009).

Managers who have dyslexia face a significant “Catch 22”; a complex and dichotomous decision whether or not to disclose their disability (Elliot & Grigorenko, 2014). We know that dyslexia can negatively affect an employee’s ability to accomplish certain tasks in the workplace effectively even though they are highly competent and possess skills that could contribute significantly to their organizations’ mission accomplishment (Elliot & Grigorenko, 2014; Bartlett et al., 2010). Stigma may influence them to choose not to disclose and by doing so they may not receive accommodations that could significantly influence their work performance (Versnel, et al., 2008). The literature highlights the fact that many employees intentionally hide their learning disability from their employers and do indeed use compensatory strategies that they have developed during their lifetime to accomplish their work tasks (Bartlett et al., 2010). Although the use of compensatory strategies may facilitate the accomplishment of the task at hand, for instance asking a colleague to proof read a document for spelling errors and word reversals before submitting it to senior leadership; the question remains, how much further might they get in developing their leadership potential if they disclosed their dyslexia and took advantage of the accommodations available to them.

Boesch et al. (1996) determined that men who had dyslexia and who understood that dyslexia was an inherited disability that was not their fault and was distinct from general intelligence had better outcomes on psychosocial measures. Illingworth (2005) found in their study on the effects of dyslexia on the work of nurses and healthcare assistants that their participants used a variety of strategies to overcome barriers created by dyslexia. The findings of the study of

Boeschth et al. (1996) on the psychosocial correlates of dyslexia across the life span, underscores the importance of creating work environments where stigma is reduced and diversity is normalized in order to enhance performance and engagement, a benefit to both employee and employer. An inclusive work environment facilitates the use of strategies and accommodations to overcome challenges created by dyslexia (Illingworth, 2005). Under these circumstances, managers who have dyslexia can excel and be successful (Logan, 2009; West, 2010). In addition, research on well-adjusted successful adults with dyslexia demonstrates that developing their own definition of success, the use of creative methods for coping with dyslexia and setting specific yet obtainable goals; are all critical to their advancing in their careers at the same rate as their peers (Goldberg et al., 2003; Illingworth, 2005; Kirby, Silvestri, Allingham, Parrila & La Fave, 2008).

There is a significant amount of research on dyslexia in children and youth and we have found that there is to some extent literature on the impact of dyslexia on adults in the workplace. The themes explored are relative to discrimination, hindering factors, stigma and impact on mental health. However, our literature review was non resultant for research on the link between leadership expression and dyslexia in the workplace as was the experience of Leather et al., (2011). To this day, leadership expression in managers with dyslexia remains under researched.

The Evolution and Understanding of Leadership

Leadership and dyslexia have a lot in common, in that they are both difficult to quantify and they are polysemic in their definition. As the definition and understanding of dyslexia has evolved, so too has the definition and understanding of leadership. Therefore, it is important to explore the evolution of leadership further in order to better understand and define what elements of leadership managers with dyslexia struggle with and what influences their choice of strategies to express their leadership.

The realities of business in both the public and private sectors are changing as we see globalization give way to increased complexity (Learmond & Mitchell, 2010). As the management structure has evolved, become flatter and more decentralized (Spisak, O'Brien, Nicholson & van Vugt, 2015) so to have the demands on managers (Spisak et al., 2015). The organizational response to a changing business environment underscores the fact that leadership is moving from a hierarchical structure to a relationship-based structure. Key drivers such as complexity, technology, demographics, accountability, austerity and a high-paced world will require of tomorrows leaders increased collaboration, greater agility, better engagement, smarter management, more innovation, flexibility and forward thinking (Canadian Public Policy Forum, 2014).

As a result, it is critical for a manager who has dyslexia to proactively find strategies to overcome the often unconscious biases of their superiors and colleagues by leveraging their strengths and taking the necessary steps to address the challenges posed by these key drivers. Thus ensuring that their learning difficulties caused by dyslexia will not derail their careers as managers and future leaders (Learmond & Mitchell, 2010). For the purpose of this article leadership is defined as: “An adaptive process where one or more individuals emerge as a focal point to influence and coordinate behavior for solving social challenges posed by dynamic physical and cultural environments.” (Hogan, Curphy & Hogan, 1994; King, Johnson & van Vugt, 2009; Nicholson, 2013; van Vugt, 2006; van Vugt et al., 2008, p. 292).

This definition of leadership was selected because it aligns itself well with the more relationship-based management structure emerging today. Leadership involves a reciprocal relationship and any discussion of leadership must attend to the dynamics of the relationship and the development of insight which allows leaders to get in touch with their full potential and internal

resources (Kouzes & Posner, 1993; Menard, 2013). In other words, a synergistic relationship is the foundation of leadership. Strong leaders are aware of the impact they have on others and vice versa. They understand that to produce results they must first build trust (Goleman, 2006) in order to fully understand and explore all the possibilities with their teams before taking action (National Managers Community, 2003).

Finally, it is important to distinguish between leadership and management because this distinction helps to define what leadership is and is not. Table 1.2 adapted from Luneburg (2011) aptly elucidates some of the important distinctions between the roles of leaders and managers. Following an extensive review, Algahtani (2014) concluded that leadership and management are two very distinct functions.

Table 1.2

Distinction between leadership and management adapted from (Luneburg, 2011)

Leadership Characteristics	Management Characteristics
Focuses on people	Focuses on things (deliverables)
Looks outward	Looks inward (daily operations)
Articulates a vision	Executes plans
Creates the future	Improves the present
Empowers	Controls outputs
Trusts & develops	Directs & coordinates
Creates change	Manages change
Uses conflict	Avoids conflict
Uses influence	Uses authority

The comparison of the leadership and management characteristics clarifies the difference between the concepts of management and leadership. It also helps to demonstrate why and how it

is a challenge for a manager with dyslexia to express leadership. The level of attention to detail and agility required by the management role can leave fewer personal resources left (energy and time) for the manager with dyslexia to express leadership (Nalavany, Carawan & Rennick, 2010).

Adults with dyslexia are underrepresented in management positions in the corporate world yet thrive in entrepreneurial ventures (Logan 2001). Of particular interest was the suggestion that people with dyslexia maybe more successful in entrepreneurial ventures because they are able to use compensatory strategies such as delegation and superior oral communication to express their leadership (Logan, 2009).

Findings, although scarce, revealed that success as managers and in leadership career progression for people with dyslexia requires personal strategies (strategic thinking, decision making, actions and effective behaviors) in support of leadership expression and most likely requires accommodation on behalf of employers (Logan, 2012).

Dyslexia has been identified as a risk factor to success and a well-lived life due to: uneasiness around disclosure, past and present pain, constant need of but seemingly elusive organizational skills, insensitive and misunderstood social perceptions, and lack of support (Nalavany, Carawan & Rennick, 2010). All of these factors may challenge emotional regulation which could have the potential to interfere with the expression of leadership.

Contribution Suggestions for Future Research

Studying leadership expression by managers who have dyslexia generates more supportive work environments. The creation of more supportive work environments requires consciously inclusive leadership culture driving a decrease in stigma through awareness of hidden disabilities such as dyslexia in organizations. This, in turn, may increase consideration of ways to support and accommodate managers with dyslexia in their leadership development and by including dyslexia

as part of the organizational strategy for promoting diversity; albeit neurodiversity. Neurodiversity is a term originally coined in the 1990's and embraces the idea that the atypical neurological development seen in people with hidden disabilities like Dyslexia, Autism, or Attention Deficit Hyperactivity Disorder (ADHD) are normal human differences that should be tolerated and respected in the same way as other human differences such as ethnicity, sexual orientation, and gender (Armstrong, 2011; Summer & Brown, 2015).

This literature review supports the pressing need for further research that will help organizational psychologists to better understand the strategies that managers who have dyslexia use (strategic thinking, actions, and effective behaviors) to express their leadership and the types of accommodations required to enable them to progress as leaders at the same pace as their peers who do not have dyslexia. An exploratory study would be better suited to portray factors of major importance that are not easily quantifiable such as contextual elements that lead a manager to select a particular strategy to express leadership. This would allow the researcher to pay more attention to the nuances, work settings, accommodations, interdependencies, complexities, and idiosyncrasies of the phenomena (Patton, 2002). For managers who have dyslexia, there exist multiple, constructed realities that are influenced by the context of the situation they find themselves in (Ponteretto, 2005). Therefore, a framework based in a constructivist paradigm, with a relativist position is most suitable for this type of research.

Currently, the research shows that the self-advocacy strategies used by employees who have dyslexia focus largely on leveraging their strengths, while avoiding disclosure of their disability (Bering, 2016). If we are to facilitate leadership development amongst managers who have dyslexia, we need to create psychologically healthy and safe workplaces that embrace

diversity. Organizations and the future leaders who work in them can only benefit from a more proactive approach to providing accommodation.

It has been suggested that future research should focus on whether or not corporate environments are conducive to the development of managers who have dyslexia or on identifying whether or not there are barriers, like stigma, that prevent them from achieving their full potential (Logan, 2009). It has also been suggested that future studies should explore the influence of a mentor or role model in helping managers who have dyslexia overcome difficulties, develop coping strategies, self-advocacy and confidence (Morgan & Klein, 2000).

This literature review that was conducted can inform organizational psychologists working in leadership development, recruiting, succession planning, coaching and mentorship programs, as well as those involved in Employee Assistance and Disability Management Programs. The findings may help them to be more effective in assisting adults with dyslexia to navigate their careers from a resilient, strengths-based perspective while weighing risks based on self-knowledge (Nalavany, Carawan & Rennick, 2010). It will do so by generating discussion on the types of accommodations managers who have dyslexia need, if any, in order to progress in their careers at the same rate as their peers. It may also assist these key support personnel in advocating for managers with dyslexia by helping them overcome stigma, and encouraging them to ask for accommodations, as well as by creating public policy to ensure inclusive and supportive work places that embrace neurodiversity. Through coaching and mentoring they may be able to help managers with dyslexia, our future leaders, increase their confidence and leadership competencies.

Doll & Lyon (1998), define resilience as “successfully coping with or overcoming risk and adversity, or the development of competence in the face of severe stress and hardship” (p. 348). Based on the results of this literature review, it would appear that resilient individuals who accept

their dyslexia and have a growing awareness of their personal strengths can lead meaningful and successful careers as leaders (Nalavany, Carawan & Rennick, 2010).

Conclusion

Organizational psychologists, disability managers, corporate learning and leadership development professionals must, henceforth, adopt a view of inclusion and accessibility as a standard of practise. There is value added in early intervention through screening for hidden disabilities as part of the intake and assessment process. This facilitates accessibility and inclusion by encouraging managers with dyslexia to capitalize on their strengths and leadership expression strategies and to embrace any accommodations they might need. It may also prevent mental health issues resulting from trying to navigate a non-supportive work environment with a learning disability from impacting a manager's leadership career progression. Collaboration amongst these internal services may contribute to the empowerment of managers with dyslexia, decrease their isolation, break stigma relative to individual differences and render accessibility and inclusion practices as part of the organizational culture.

Managers with dyslexia have a highly visual way of thinking which is helpful in problem solving. They are able to recognize patterns of information quickly; mentally rearranging designs and processes which facilitates innovation in the workplace (Reid & Kirk, 2001; Mcloughlin, Fitzgibbon & Young, 1994). These skills, combined with personality traits such as perseverance, discipline, high ambition and the strong motivation crucial to getting the job done, which are characteristic of people with dyslexia, underscores the need to better understand this population in order to create work environments that capitalize on these strengths (West, 1997). Recognizing personal strengths, having a positive support system, and developing compensatory strategies are

all building blocks related to success for the adult with dyslexia (Nalavany, Carawan & Rennick, 2010), and may provide a foundation for a more effective expression of leadership.

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CHAPTER 2

TRANSITION

The first article presents the findings of the literature review gathered as evidence to demonstrate the need for more research on dyslexia and leadership expression. It elaborates upon theoretical underpinnings for the proposed exploratory qualitative research the results of which will be discussed in the second article. The literature review, an anterior phase to the study, was based on systematic research synthesis guided by the research question, “What strategies do managers who have dyslexia use to express their leadership?” A systematic review synthesis involves the retrieval, codification and integration of empirical information gleaned from the literature in order to come up with conceptual rather than statistical analysis of findings relevant to the phenomena of interest (Rothman, Damron-Rodriquez & Shenassa, 1994; Nalavany, Carawan & Rennick, 2010).

A significant finding of the literature review was that there is very little, if any research on leadership expression and dyslexia in the workplace (Leather et al, 2011) and that the self-advocacy strategies used by employees who have dyslexia focus largely on leveraging their strengths, while avoiding disclosure of their disability (Bering, 2016). This raised some interesting questions about inclusivity and supportive work environments.

Indeed, the results of the literature review explored in the first article, provide the reader with a more fulsome appreciation of the complexity of dyslexia, a highly comorbid disability which also frequently co-occurs with ADHD (Lindgren, M., Jensen, J., Dalteg, A., Meurling, A.W., Ingvar, D., Levander, S., 2002) further complicated by the fact that compared to those without a learning disability, twice as many adults who have learning disabilities say they experience episodes of distress, depression, anxiety disorders, suicidal thoughts or consult with mental health (Wilson, Armstrong, Furrie & Walcott, 2009).

The impact of stigma and self-stigmatization on leadership career progression of managers who have dyslexia is reflected in the findings of Nalavany, Carawan & Rennick, (2010) who identified dyslexia as a risk factor to success and a well-lived life due to: uneasiness around disclosure, past and present pain, constant need of but seemingly elusive organizational skills, insensitive and misunderstood social perceptions, and lack of support. As such it becomes clear that the level of attention to detail and agility required by the management role can leave fewer personal resources left (energy and time) for the manager with dyslexia to express leadership (Nalavany, Carawan & Rennick, 2010).

An inclusive work environment is defined as one that facilitates the use of strategies and accommodations to overcome challenges created by dyslexia (Illingworth, 2005). Under these circumstances, managers who have dyslexia can excel and be successful (Logan, 2009; West, 2010).

The literature review supports the pressing need for further research to determine the what strategies, if any, managers who have dyslexia use to express their leadership and perhaps more importantly, the types of accommodations, if any, required to enable them to progress as leaders at the same pace as their peers who do not have dyslexia. It demonstrated that the time has come to start talking openly about dyslexia in the workplace.

The second article presents the results of the study and explores the impact of dyslexia on leadership expression, career progression and psychological health and safety in the workplace.

Thematic analysis identified four major themes: (a) creative leadership expression, (b) impact of dyslexia on career progression, (c) accommodation's role in leadership career progression, and (d) supportive, inclusive & accessible environments as vital to leadership career progression and nine subthemes including (a) leadership within the Public Service of Canada, (b)

leadership styles, (c) strategies used to express leadership, (d) obstacles to leadership career progression, (e) leadership career enablers, (f) self-accommodations, (g) assistive technology, (h) accommodation awareness, and (i) disadvantages of accommodation.

It has been demonstrated in the research that many managers with dyslexia fear repercussions on their careers and on how they might be judged by superiors, peers and direct reports should they disclose their dyslexia (Nalavany, Carawan, & Rennick, 2010). The results of this study demonstrate that the impact of stigma and self-stigma more often than not result in non-disclosure particularly during selection processes and that there are more obstacles than enablers to career progression in the workplace for managers who have dyslexia (De Beer et al., 2014). A report recently released by The Westminster Achieve Ability Commission for Dyslexia and Neurodivergence (Hewlett, Cooper, & Jameson, 2018) based on triangulated evidence collected through focus groups, extensive surveys, expert witnesses, employers, written evidence and neurodivergent voice sessions, supports these assertions with findings such as:

- 43% of those surveyed felt discouraged from applying by the job application processes;
 - 52% reported experiencing discrimination during the selection processes;
 - 73% chose not to disclose during the selection process; and,
 - of those who chose to disclose, 58% regretted disclosing and felt this led to discrimination.
- (Hewlett, Cooper, & Jameson, 2018).

One of the key findings of the current study is that for the most part people with a hidden disability like dyslexia don't want to be accommodated. What they want and need are work environments that are designed to be consciously inclusive, accessible and supportive at all levels.

Without this type of supportive environment it is very difficult for managers with dyslexia to progress in their careers at the same rate as their peers who do not have dyslexia.

CHAPTER 3

LEADERSHIP EXPRESSION BY MANAGERS WITH DYSLEXIA: A NEED FOR INCLUSIVE ACCESSIBLE WORKPLACES

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Abstract

This qualitative exploratory study identified strategies used by managers who have dyslexia to express leadership and accommodations that they needed (that can be provided by their employer) to progress in their leadership careers at a rate comparable to their peers who do not have dyslexia. Dyslexia, an invisible disability, results in twice as many adults with dyslexia experiencing episodes of distress, depression, and anxiety, suicidal thoughts, or requiring professional consultation as their peers. Semi-structured interviews were conducted with five Canadian Public Service managers who have dyslexia. Thematic analysis identified four themes: (a) creative leadership expression, (b) the impact of dyslexia on career progression, (c) accommodation's role in career progression, and (d) supportive, inclusive and accessible environments as vital to leadership career progression. A need for increased support and self-advocacy was identified and could be mitigated with Acceptance and Commitment Training, a potential facilitator of leadership development, psychological flexibility, confidence and competence. Implications for managers with dyslexia and their support networks, as well as future practice and research are discussed.

Keywords: managers, stigma, mental health, work place, coaching, leadership strategies, disability, accessibility, accommodation, leadership expression, dyslexia.

Introduction

The intention of the study was to answer the following research question: what strategies if any, are used by managers who have dyslexia to express their leadership that are not used by managers who do not have dyslexia and what accommodations, if any, may be needed by managers who have dyslexia in order to progress in their careers at the same rate as their peers who do not have dyslexia? According to D'Intino (2017) accommodations are specific circumstances, services, or tools that are applied in instructional or work settings in order to allow individuals with disabilities or academic challenges, including second-language learners, individuals with visual or auditory impairments, and students with learning disabilities including dyslexia, to perform to their highest potential.

Investigating the literature, an anterior stage to conducting this research, was non-resultant for research linking dyslexia and leadership. However, it did serve to frame the existing gaps encompassing obstacles experienced by managers who have dyslexia, the impact of this condition on their leadership career progression and their psychological health and safety in the workplace.

There were no specific studies on managers with dyslexia expressing leadership that we were able to find. However, there are studies on the expression of leadership and learning disabilities with small sample sizes which resulted in important findings (Harley, Metcalf & Irwin, 2014; Ineson, 2015; Kenny & McGilloway, 2007; Ladegard & Gjerde, 2014; Meadan & Halle, 2004; Nordby 2015; Shewan, Crawley, McKenzie & Quayle, 2014). Mason's (2010) paper examined sample size and saturation in doctoral studies using qualitative interviews. He found samples of 5 to 50 participants to be acceptable depending on the methodology used and the purpose of the study. Despite the small sample size in the current study, we found that we were

able to collect a rich data set appropriately gaining greater understanding of the phenomena of the expression of leadership in managers with dyslexia.

Many managers with dyslexia fear repercussions on their careers and on how they might be judged by superiors, peers and direct reports should they disclose their dyslexia (Nalavany, Carawan & Rennick, 2010). Ironically, it is known that healthy workplaces which consist of high employee engagement and high performance celebrate and support diversity (Cheruvilil, Soranno, Weathers, Hanson, Goring, Filstrup & Read, 2014; Spinks & Moore, 2007).

By addressing leadership expression by managers who have dyslexia, an under researched area, the intention is to decrease stigma through awareness. In addition we hope to increase the desire of organizations to facilitate and support the leadership career progression of managers who have dyslexia through the development of their knowledge, skills and abilities (Goyal & Patwardhan, 2018) and finally, to have invisible disabilities like dyslexia included in organizational strategies for promoting accessibility and diversity; albeit neurodiversity.

Neurodiversity, a term originally coined in the 1990's, embraces the idea that atypical neurological development seen in people with for instance, Dyslexia, Autism Spectrum Disorder, and Attention Deficit Hyper Activity Disorder (ADHD) are normal human differences that should be tolerated and respected in the same way as other human differences such as ethnicity, sexual orientation, and gender (Armstrong, 2011; Summer & Brown, 2015).

For the purpose of this study dyslexia was defined as:

a specific learning disorder whose origins are neurobiological. Dyslexia is characterized by difficulties in the exact or fluent recognition of words as well as limited orthographic skill and decoding capabilities. These difficulties typically result from the often unexpected deficit in the phonological component of language compared to other cognitive abilities which affects the ability of an individual to speak, read, spell and, often, learn a second language. (Lyon, Shaywitz & Shaywitz, 2003, p.2).

This definition remains widely supported in the current research (Snowling, Hulme & Nation, 2020) and aligns well with the diagnostic criteria of the DSM V (American Psychiatric Association, 2013).

Leadership was defined as:

an adaptive process where one or more individuals emerge as a focal point to influence and coordinate behavior for solving social challenges posed by dynamic physical and cultural environments (Hogan, Curphy & Hogan, 1994; King, Johnson, & van Vugt, 2009; Nicholson, 2013; van Vugt, 2006; van Vugt et al., 2008 p. 292).

With growing emphasis on mental health and the recent creation of the Centre of Expertise on Wellness, Diversity and Inclusion by the Canadian Public Service (2019) it is even more important today that leaders become consciously proactive in the creation of supportive, inclusive, accessible environments for those with invisible disabilities, (Summer & Brown, 2015).

Methodology

This exploratory study used a qualitative approach better suited to portray factors of major importance that are not easily quantifiable such as contextual elements that lead managers to select a particular strategy to express leadership. This allows researchers to focus on the nuances, work settings, accommodations, interdependencies, complexities, and idiosyncrasies of the phenomena (Patton, 2002).

Participants

Purposeful intensity sampling, selecting information-rich cases which manifest the phenomenon of interest intensely where one can learn a great deal about issues of central importance (Patton, 2002) was used to select the participants for this study.

Participants selected from the Canadian Federal Public Service were English speaking managers with dyslexia, male and female, who supervised a minimum of one direct report (with

no maximum) regardless of whether or not they were authorized to staff or responsible for financial management. These managers were between 35-60 years old and either self-identified or confirmed they had been clinically assessed as having dyslexia.

All were screened for dyslexia. A review of the literature has demonstrated that best practice is to screen all participants for dyslexia (Logan, 2009). Screening for dyslexia allowed the researcher to eliminate other learning disabilities that might look like dyslexia and learning difficulties caused by something else such as ADHD (Logan, 2009). Inclusion criteria were: ability to speak, read and write in English; ability to understand and give consent; managers up to the EX one level (first designated executive level); employed by the Canadian Public Service and having dyslexia (as supported by psychometric screening).

Exclusion criteria were: unilingual Francophone (as an Anglophone, the researcher's French interviewing skills were not as strong as the English interviewing skills which may have affected the results); screening out for dyslexia; screening in for ADHD; not being a manager; unable to accept the conditions of the study and unable to provide informed consent.

An invitation to participate in the study was posted on the GC Connex page (a Facebook like Government of Canada wide community building tool) of the National Manager's Community; an internal government organization for managers. Initially thirteen (13) potential participants responded. A sample of five participants (N=5) met the selection criteria and was balanced on the dimensions of gender (N=3 females, N=2 males); language (N=3 Francophones, N=2 Anglophones) and age (N=3; 35-45 years old, N=2; 46-60 years old). Three government departments from two eastern provinces (Ontario & Quebec) were represented. Employee Assistance Programs (EAP) which provide free mental health counselling as a benefit employees,

exist across the Public Service, so participants were reminded of their availability and encouraged to access them should they have become distressed as a result of participating in the study.

Instruments and Procedures

Table 3.1 presents instruments used in the current study, their purpose and their application. These instruments were chosen because they allow for data collection in support of the question: what strategies (strategic thinking, decision making, actions, and effective behaviors) if any, are used by managers who have dyslexia to express their leadership that are not used by managers who do not have dyslexia and what accommodations, if any, may be needed by managers who have dyslexia in order to progress in their careers at the same rate as their peers who do not have dyslexia?

Table 3.1

Instruments used in the current study

Instruments	Purpose
Demographic Questionnaire	Collection of data on participants' profile and for screening purposes.
Bangor Dyslexia Checklist (Miles, 1997)	Screening for dyslexia in participants for their inclusion in the study.
Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist (Kessler et al., 2005)	Screening for ADHD for the purpose of elimination of unsuitable participants from the study.
Semi-structured interview questions	Collection of rich data from individual experiences.

Previous studies determined that to be diagnosed with dyslexia, respondents must report: difficulty with spelling and pronunciation of long words; questions relating to taking down and passing on messages or sequencing; plus at least two other areas (Logan, 2009; Miles, 1993). The same screening criteria were used because of the alignment with the definition of dyslexia selected for

this study. Potential participants were screened for dyslexia using the Bangor Dyslexia Checklist which includes twelve items identifying key difficulties experienced by people with dyslexia (Miles, 1997). Statistical analysis revealed the checklist to be a reliable ($\alpha = .72$) and a valid dyslexia screening tool that effectively identifies adults at risk of dyslexia with an overall classification rate of 94% (sensitivity 96.4% and specificity 82.5%) (Reynolds & Caravolas, 2016). Screening was also done for ADHD using the Adult ADHD Self-Report Scale Symptom Checklist (ASRS-v1.1) which includes 18 items evaluated on a Likert scale of 1-5 (Kessler et. al., 2005). It screened for ADHD based on the criteria established in the DSM-IV-TR (APA, 2000). According to Kim, Lee & Young (2013) the ASRS-v1.1 demonstrated good internal consistency and test-retest reliability. Correlations between the ASRS-v1.1 and other adult ADHD measures were high, providing evidence of convergent validity. A subsequent exploratory factor analysis indicated that a two-factor solution provided the best fit.

The Bangor Dyslexia Checklist (Miles, 1997) and the Adult ADHD Self-Report Scale Symptom Checklist (Kessler et al., 2005) psychometric tests already proven and used in different studies, were selected based on their reliability, validity, ease of access, affordability and short administration time (5-10 minutes each). Basic demographic data was collected at the same time.

An encrypted email invitation to participate in the screening process sent to potential participants included an information and consent form, the psychometric screening tools and demographic data survey. Potential participants were asked to complete the documents within two weeks from the date they were sent. Consideration was given to the fact that the participants could have dyslexia. They were offered the option of filling out the questionnaire on-line with text to speech enabled, or completing a hard copy sent by email, scanning it and emailing it back. The questionnaire was written in plain language and kept at a grade six literacy level, avoiding large

multi-syllable words. Once the selection process was completed, participants were informed by email whether or not they met the selection criteria. Participants selected, received an email invitation to participate in one-hour semi-structured interviews where the goal was to explore the topic of leadership expression more openly allowing participants to express their opinions and ideas in their own words (Patton, 1990). The point of view, the interviewee's responses, shapes the order and structure of the interview. Four interviews were conducted in person and the fifth interview by telephone. All interviews were recorded with the participants informed, signed consent.

The audio recorded interviews were transcribed by the first author. The first transcription was quality reviewed by the second author. All interviews were reviewed for accuracy by the first author and the participants of the current study.

Data Analysis

The research was data driven, using an inductive qualitative approach (Corbin & Strauss, 2008; Patton, 1990). NVIVO data analysis software designed for qualitative research was used to process results. Braun and Clarke's (2012) thematic analysis facilitated identifying, analyzing, and reporting themes within data. This pattern-type data analysis was not connected to any pre-existing theoretical framework (Clarke, 2005) and summarised key features of a large amount of data. This helped identify strategies managers' use to express leadership and accommodations needed to overcome obstacles while generating insight, through social/psychological interpretations of the phenomena (Braun & Clarke, 2006).

Once the data was described and organized to show patterns in semantic content, an attempt was made to theorize the significance of the patterns, their broader meanings and implications (Patton, 1990) in relation to the research question in the current study.

Reliability and Validity

Objectivity and confirmability were addressed using evaluative criteria adapted from Miles and Huberman (1994) and Yin's (2014) recommendations.

Objectivity was ensured by being explicit that the researcher is also a manager in the Public Service who has dyslexia, declaring that this could lead to unconscious bias, recording first author's biases/ideas and using triangulation of perspectives by submitting the emerging themes to the thesis director and having the participants validate them (Laperrière, 1997). The following steps were taken to ensure confirmability: detailed open coding based on participants verbatim; auditing of code structure from second author; participant member checking. A 75% inter-rater reliability score was obtained between the first and second researcher in the application to the data codes established by the first researcher. This convergence of perspectives allowed us to confirm the results and reduce the impact of the intrinsic bias of a unidimensional perspective.

Results

Data collection occurred over a two-month period using one-hour semi-structured interviews. The results of the study are presented in detailed narrative form in the following text.

Inductive thematic analysis across the combined interviews revealed a large number of rich internal (participant's thoughts, feelings, beliefs, knowledge) and external (organizational policy, procedures, culture) factors impacting the expression of leadership in the Public Service by managers who have dyslexia. Four themes emerged from the research data: (a) creative leadership

expression, (b) the impact of dyslexia on career progression, (c) accommodation's role in career progression, and (d) supportive, inclusive, and accessible environments as vital to career progression. Themes were deconstructed and explored using sample verbatim. Given that semi-structured interviews were the primary method of data collection, the respondent's actual words were used where ever possible. In order to protect identity, they will only be referred to by their participant number. Table 3.2 illustrates the four key themes selected based on the number of participants who referenced them and the frequency of those references.

Table 3.2

Key Themes Relative to Leadership Career Progression of Managers Who Have Dyslexia

Participant	Theme 1 Creative leadership expression		Theme 2 Impact of dyslexia on career progression		Theme 3 Accommodation's role in career progression		Theme 4 Creating Supportive Environments	
	References Coded (RC)	Frequency %	RC	Frequency %	RC	Frequency %	RC	Frequency %
P001	39	11.83	50	13.54	25	4.70	6	2.4
P002	32	7.57	41	13.41	34	11.60	11	4.42
P003	43	11.93	28	13.52	18	3.87	8	6.30
P004	41	11.39	54	14.63	35	11.40	1	.19
P005	49	10.75	84	19.87	46	8.27	1	.27

Table 3.3 presents the subthemes of the key themes presented in Table 3.2. The numbers in the "Participant" column represent the total number of participants who reported the theme or subtheme and the "Frequency of Coded References" column represents the total number of times it was referred to. This data provides a deeper reflection of the participants' experiences.

Table 3.3

Frequency Relative to Key Themes and Subthemes

Themes, Subthemes	Definition	Participant N=5	Frequency of Coded References
1.0 Key Theme: Creative Leadership Expression	Elements of leadership explored	5	204
1.1 Subtheme: Leadership within the Public Service of Canada	Leadership requirements particular to the Public Service of Canada	5	58
1.2 Subtheme: Leadership styles	Leadership styles identified	5	48
1.3 Subtheme: Strategies used to express leadership	Strategies used to express leadership	5	98
2.0 Key Theme: Impact of dyslexia on career progression	Obstacles & enablers of leadership career progression resulting from dyslexia.	5	257
2.1 Subtheme: Obstacles	Obstacles resulting from dyslexia, impede individual career progression.	5	243
2.2 Subtheme: Career Enablers	Attributes resulting from dyslexia identified as enablers of career progression.	4	14
3.0 Key Theme: Accommodation's role leadership career progression	Participant's perspectives on accommodation and its role in career progression.	5	160
3.1 Subtheme: Self accommodations	Strategies, tips and tricks used to self-accommodate for obstacles resulting from dyslexia.	5	88
3.2 Subtheme: Assistive technology	Access to assistive technology as a crucial enabler of career progression	4	29
3.3 Subtheme: Accommodation awareness	Different aspects of awareness and knowledge accommodation	6	28
3.4 Subtheme: Disadvantages of Accommodation	Elements of accommodation considered disadvantageous.	4	14
4.0 Theme: Supportive, Inclusive & Accessible Environments as vital to career progression	The need for supportive, inclusive, accessible work environments to facilitate career progression of managers who have dyslexia.	5	27

Each of these themes and their subthemes are described in greater detail in the succeeding part of this article.

Creative Leadership Expression

This theme on how participants understood and expressed leadership included three subthemes: (a) strategies to express leadership, (b) leadership styles, and (c) leadership in the Public Service of Canada.

Strategies Used to Express Leadership. This subtheme had the highest frequency of references by all the participants in reference to leadership. Four primary strategies were reported: (a) Reliance on oral communication skills to offset challenges with reading and writing, (b) Collaboration and consultation; (c) Mining Expertise, and (d) Self-disclosure as team building strategy.

Reliance on oral communication skills to offset challenges with reading and writing. Most of the participants reported relying on oral communication skills, particularly authentic, open dialogue and active listening to express leadership. As participant 1 stated, “I have to learn to bite my tongue; that other people have ideas. You have to listen to them all, take everything into consideration and go back for group consensus.” The participants also used communication to build relationship and understanding.

Others relied on oral communication to offset obstacles with written communications. Participant 3 noticed this. “It’s a lot easier for me to pass along my message orally than in written format. I’m not one to write giant emails that go on forever because it’s harder for me.”

Collaboration and Consultation. Participants expressed their leadership by reaching out to others in person to gather information to foster understanding that informed strategic thinking and

decision making. Participant 5 stated, “I’m a big proponent of informed decision making, so when it comes to strategic thinking I always try to start with a foundation of understanding of what do we know today.”

The collaboration and consultation strategy facilitated navigating the complex, bureaucracy that is the Public Service and was considered fundamental to better outcomes. “Working with colleagues from a vast array you get the diversity of views and opinions. Then you get a good product at the end of the day because everybody is bringing their own perspective from their specific area to the task. You’re getting a well-rounded product that actually works.”

Mining Expertise. This strategy served two purposes related to leadership expression. The first was leveraging talent from within and relying on that talent to get the job done. Participant 1 stated, “We’ve had emergencies where we’ve had to step in and then you pull the people that you know can do the work quickly and without much supervision.”

The second reason participants used this strategy was to offset obstacles, self-described as weaknesses resulting from dyslexia such as number reversals for instance which could impact financial management tasks. Participant 2 describes this. “I’m relying on the people that I’m working with. They know their job. They have their own expertise. Whenever I’m having a weakness or I’m not comfortable with something or someone I’ll bring in an expert.”

Self-disclosure. Three out of five of the participants chose not to directly disclose that they had dyslexia, but all referred to it indirectly with their colleagues using self-disclosure to build relationship and relatability. Participant 4 described this particularly well, “Now I’ve let my colleagues know. “Look, I’m pretty sure I’ve got dyslexia. I do my best. If you see that I wrote something and you think that I’ve made a horrible mistake, let me know. I’ll be happy. At least I

will learn at the same time.” Several participants mentioned that with the passage of time and subtle shifts in organizational culture they were becoming more comfortable disclosing; still indirectly or with humor “I might occasionally say jokingly, “and just ignore all the spelling mistakes because I’m a bit dyslexic.” It’s the ability to laugh at one’s self, to laugh at a stupid mistake in confidence and know that people respect you anyway.”

Leadership in the Canadian Public Service. This subtheme refers to the participant’s understanding of leadership. Participant 3 stated “You may be a leader and not be a manager; one doesn’t mean you are the other but to be a good manager you need to be a good leader. “

Some talked about the way government works; the challenge of trying to get things done in a cumbersome, hierarchical, bureaucratic yet highly reactive environment. As participant 5 pointed out, “Stove piping; your typical bureaucratic response to issues aside from the reactive versus proactive; a fact of life in the Public Service. I noticed a lack of sharing of information between groups.”

As participant 3 reflected, “I mean getting the people around you to adhere to where you’re going and trying to work together as a team to get to that goal because it’s government it’s very complex, very static, and it’s harder, out there to do any change management.” As such, Key Leadership Competencies (2020) were identified as being fundamental to effective leadership in this environment.

Collaboration. As stated by participant 5, “The primary attribute of a good leader is a collaborative process. I approach leadership in a very collaborative way. It’s putting into practice in a very practical, structured way, how to start sharing information better between the groups.”

Engagement has many definitions one of which included five simple, yet significant words, “an arrangement to be present” which were echoed by participants as they reflected on the meaning of leadership. Participant 1 said “I like to engage them. I want them to feel that they own what they’re doing and if they’re ever stuck that they can come back to me and we’ll work things through. I think managing is listening to people, taking their advice and then acting on it.” Whereas both participants 4 and 5 emphasized the importance of being accessible.

Some participants saw respect to be fundamental to the integrity of their leadership expression, especially respect for diversity in the workplace. One participant observed, “There’s hierarchy. You ask people to respect that in terms of the reporting structure but you treat everybody with the same basic rights, equality and respect.” The participants’ understanding of leadership in the Public Service influenced their leadership style which will be explored next.

Leadership Styles. This subtheme refers to the type of leadership style adopted by each participant. Before coding references into specific leadership styles, the styles had to be identified and defined (see Table 3.4). Of the six mentioned, three were referenced most frequently by the largest number of participants: (a) people oriented, (b) democratic participative, and (c) directive.

Table 3.4

Leadership Styles: Definitions & Frequencies

Leadership Styles	Definitions	Number of Participants	Frequency of References
Instinctive open leadership	Using intuitive intelligence to guide decision making.	1	1
Transformational leadership	Focus is on employee motivation with the focus on organizational objectives.	2	5
Directive leadership	Structured, project management type leadership where employees are expected to perform tasks as directed.	3	15
Servant leadership	Leading by example.	3	8

Democratic participative	There is joint critical thinking but final decisions are made by the leaders.	4	5
People-oriented	Team work and creative collaboration is encouraged under this style.	4	14

Note: These definitions are adapted from: Khan M. S., Khan I., Qureshi Q. A., Ismail H. M., Rauf H., Latif, A. & Tahir, M. (2015) The Styles of Leadership: A Critical Review. *Public Policy and Administration Research*. Vol.5, No.3, 87-92.

Despite having developed leadership strategies based on a solid understanding of leadership in the Public Service and the adoption of leadership styles that were congruent with that organizational structure, from the perspective of the participants, there were obstacles; attributes of dyslexia that did impede their leadership career progression.

The Impact of dyslexia on Leadership Career Progression

This theme refers to attributes that managers who have dyslexia felt impeded or enabled their leadership career progression. Two subthemes illustrated in Figure 3.1 were identified: (a) Obstacles to Career Progression (95%) and (b) Career Enablers (5%).

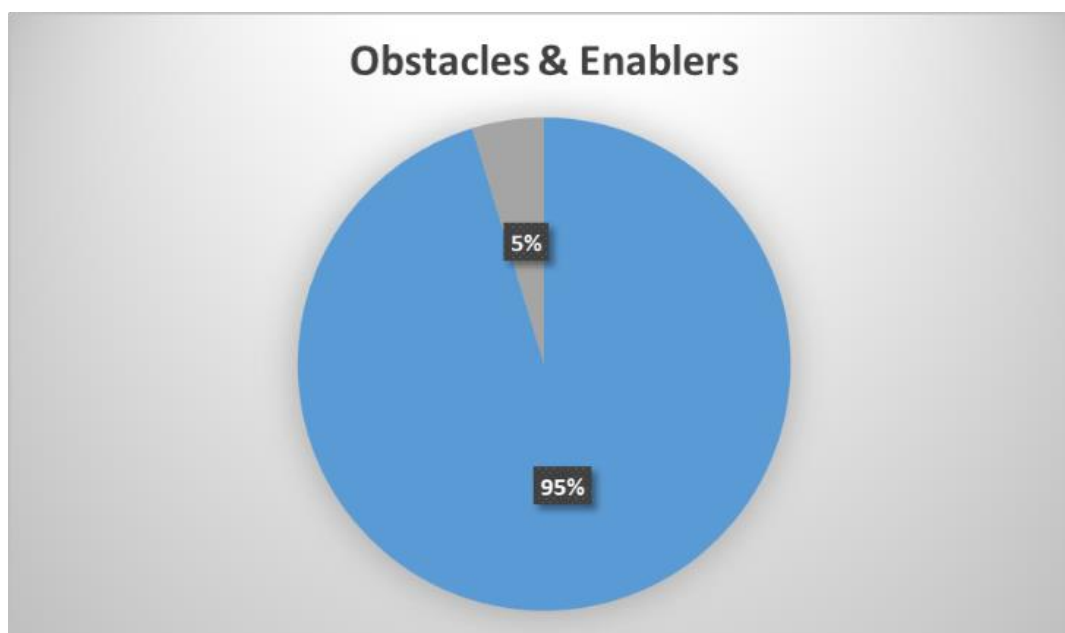


Figure 3.1 Obstacles & Enablers Compared by Frequency of Coding References

Obstacles to Career Progression. As portrayed in Figure 3.1, this subtheme refers to cognitive, emotional, behavioral and environmental components from challenges with reading and writing to self-stigmatization that in the view of the participants, got or are getting in the way of their leadership career progression.

Cognitive aspects included a lack of a fulsome understanding of dyslexia and challenges with reading and writing which were problematic in: (a) attention to detail, (b) performance on language evaluation tests, and (c) performance on written exams in competitive processes.

Surprisingly, most of the participants had limited knowledge of their own dyslexia, what it actually is and how it manifests itself for them in the workplace. As participant 5 stated “I don’t have a fulsome understanding of the “thing” that we call dyslexia. I know some of the impacts it can have but even those; well I’ve never known the reverse.”

Even more interesting was that fact that some of the participants had little interest in furthering their knowledge or insight. Participant 5 goes on to say “I’ve never done any sort of research into it. I’ve never really stopped to say to myself, “Okay, what are the challenges that this thing that is ill defined in my own head has posed? What are the barriers?” I don’t know, you see and that’s the thing; I don’t even know if some of my issues are dyslexia or whether it’s something else?” All of the participants who had not pursued a formal assessment, when asked if they would consider getting one now, categorically said no.

All the participants reported having issues with errors in grammar and spelling, difficulty accurately transcribing numbers, word reversals, slow reading and processing speeds. Participant 4 stated “I’m better now but as a teenager writing was the worst thing ever. It’s not as easy for me. I’m pretty sure I’ve got dyslexia, still when I write stuff, if I look back at what I wrote I’m like,

“Holy crap!” I write a word and sometimes the letters are all there but they’re all scrambled and reading takes me a while.”

All the participants reported challenges with attention to details, focus and concentration which often resulted in what they felt others perceived as careless errors. A good example of this reported by all the participants involved challenges with filling out forms, “I don’t know how to explain it. I’ve got trouble looking; it’s not the simple line by line, like when I look at a form it’s like I’ve really got to focus.” Lack of attention to detail was exacerbated when fatigue, distractions, time pressures and work volume were factored in. Participant 2 observed “If I want to be an executive, well either somebody on the jury is going to have to see the potential that I have or I won’t be able to have an executive job because I’m not able to see the details.”

One participant noted “French language training or any second language training, English or French; people with dyslexia learn differently and the way they teach, is not the way dyslexic people learn.” As participant 1 stated “It goes right back to the language because I wasn’t able to learn it. The management skill sets I had. I had the right English writing skills. I could have gotten through that and I could lead pretty much any team and manage any team but um...language.”

Issues with reading and writing also had an impact on navigating the competitive process in the Public Service, participant 4 commented “For me the toughest one is the staffing processes because a big part of that one is actually written exams. It’s not that I don’t know the content or the subject matter it’s I’m always stressed out that when I go and write the exam that I will make a bunch of grammar mistakes or spelling mistakes, so to me that’s the biggest one.”

Suffice it to say, the obstacles presented by reading and writing challenges in these areas had an emotional impact with many of the participants reporting increased levels of stress trying

to get their language levels and/or compete for promotions successfully against their peers who do not have dyslexia.

Emotional Impact. All the participants reported that the challenges resulting from dyslexia took an emotional toll; an obstacle in and of itself. Stress, anxiety, shame, sadness, frustration, and resentment influenced performance, competence and confidence. Participant 3 became quite emotional during the interview when she stated, “Fear of not succeeding, injustice because I know that I can do the job, resentment for those people that do get the job and are not really qualified for it.” Participant 4 reflected “The crazy thing is for a while I always knew I was pretty smart but I always thought I was dumb at the same time.” Participant 5 echoed this sentiment when he said “I think it impacts my self confidence in a way. I show some weakness in management and leadership in my role sitting at the table, with, excuse the gender specific term, “the big boys” or other senior executives. I worry that I’m letting my team down by not being a strong enough leader. Again, it’s a self-confidence thing.”

Behaviours included self-stigmatization and non-disclosure. Many participants reported being harder on themselves than others. They would willingly accommodate without judgement their employees but would never ask for accommodation themselves. As participant 2 reflected, “I think I’m willing to give more accommodation to my staff than I am offering myself. I don’t feel that I have that safety net there. I’m doing what I can to provide one to my staff but as for myself, I don’t feel that I have one. I’m doing self-stigmatization.” Participant 4 echoes this type of thinking, “I’ve got dyslexia but other people have other problems and I don’t want to use that as an excuse.”

As participant 2 states, “I think a lot of managers including myself don’t feel really comfortable targeting ourselves or tagging ourselves. I’m the leader so I’m supposed to be strong,

efficient, in other people's eyes right?" Three out of five participants did not disclose their dyslexia. Of the two who disclosed, one did so indirectly and the other felt forced to disclose in order to get accommodations required for French language evaluations. As participant 5 so eloquently puts it "Maybe it goes back to that bit of false thinking; false pride maybe in a way of thinking of weaknesses and things like that as opposed to just differences."

Environmental issues including the impact of stigma and discrimination were the second most frequently referenced obstacles. As participant 1 stated, "It's like mental illness, the stigma's there and it's huge." All the participants told stories of their experiences with stigma and discrimination related to dyslexia; having to navigate that in their own families, all through school and in their careers. Participant 3 comments illustrate the impact "I would say that any weakness is perceived as a weakness. It's very much focused on. If you disclose, you're going to get discriminated against. It is out there, discrimination, even though it's hidden."

Although several obstacles were expressed by participants in the study; certain attributes of dyslexia or the participants experience navigating their careers while dealing with dyslexia might actually have enabled their leadership career progression.

Career Enablers are strengths identified by participants as attributes of dyslexia which they felt actually facilitated their leadership career progression. These enablers were: (a) resilience, as a result of persistence; (b) big picture thinking, and (c) adaptability.

Resilience as a result of persistence. Here participants reflected on how overcoming the challenges presented by having dyslexia, the need to persist, to persevere and figure out a work around, may have made them more resilient and resulted in positive outcomes.

Big picture thinking. Three out of the five participants talked about thinking differently than their colleagues. The ability to think outside the box and use their creativity and innovativeness to their advantage were positive attributes mentioned by the participants.

Finally, *adaptability*, the general ability to compensate and adapt as needed was reported by several participants. In a world looking for more agility from its leaders, this strategy may be seen as a strength that enables career progression.

In the Public Service, accommodation is about removing discriminatory barriers related to the 13 prohibited grounds of discrimination, up to the point of undue hardship to the employer, (Policy on Duty to Accommodate, 2017). Results related to accommodation will be reported in the next section.

Accommodation's Role in Career Progression

The theme of accommodation's role in career progression resulted from the discussions of accommodations managers with dyslexia reported may or may not help them progress in their leadership careers at the same rate as their peers. The results of this study revealed four key areas: (a) assistive technology, (b) self-accommodations, (c) accommodation awareness, and (d) accommodation as an obstacle.

Assistive technology was reported by all but one participant as being vital to career progression. Participant 5 emphasized, "The advent of spell check and the age of computers as I went through school was a revelation to me. I don't know whether I would be where I'm at today in my career without that."

Self-accommodation refers to a variety of behaviors used by the participants to offset some of the obstacles that result from having dyslexia. The top four self-accommodations cited most

frequently by participants, as depicted in Figure 3.2 were: (a) recruiting supportive colleagues, (b) tricks used to offset issues with working memory, (c) building in extra prep time, and (d) working harder than colleagues to achieve the same results.

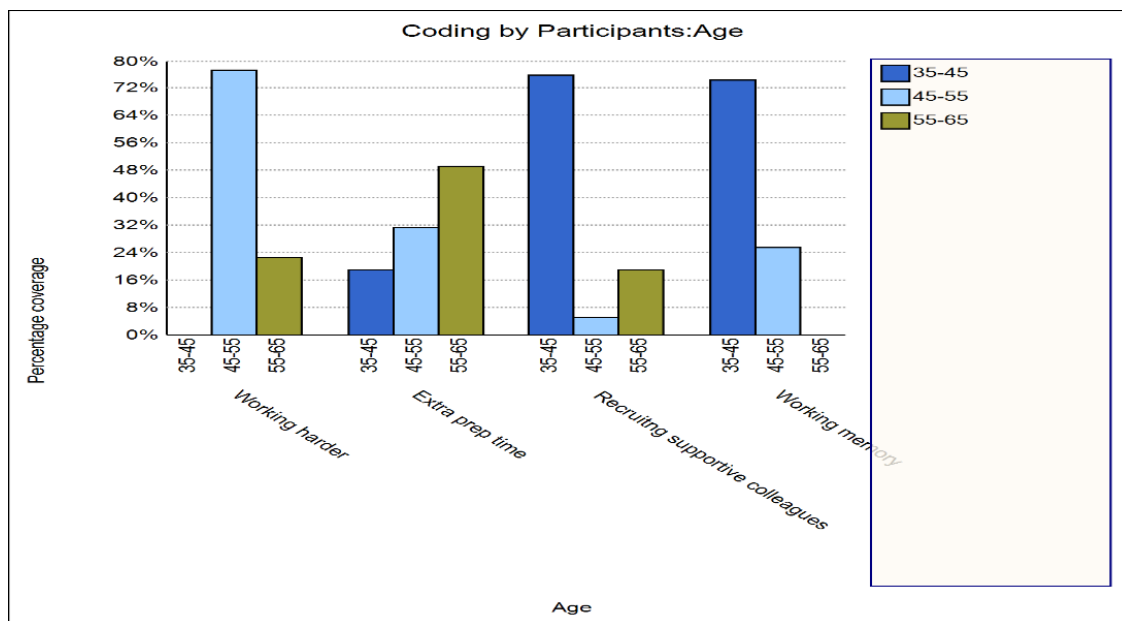


Figure 3.2 Top four self-accommodations

The most frequently referenced self-accommodation was recruiting supportive colleagues. Here participants engaged supportive colleagues to check their work for grammar, spelling, errors or omissions and to make sure they attended to the finer details. In more complex processes like financial management, some participants reported self-accommodation by delegating tasks that were challenging for them as a result of their dyslexia. When it came to career progression, having the support and advocacy of a senior manager played a significant role.

As mentioned earlier in this article, none of the participants had a fulsome understanding of their dyslexia. As a result, although in general *accommodation awareness* was high amongst them as leaders, it was very low when it came to identifying accommodations for themselves. It

was a case of “I don’t know, what I don’t know.”

Finally, most of the participants were concerned that accommodation might be perceived as a weakness or unfair advantage by their peers. In this sense, many felt this to be a *disadvantage of accommodation* and all believed that asking for or accepting accommodation would be career limiting.

The final key theme emerged from a question related to contextual elements that participants felt had an impact on their leadership career progression.

Supportive, Inclusive and Accessible Environments as Vital to Leadership Career Progression

A part from changing the design of language training and the approach to the competitive process for job postings in order to make both more accessible to people with dyslexia, the majority of the participants said they would like to see a change in the culture of the Public Service with regards to disability. They would like to eliminate stigma by moving away from accommodating people towards the more proactive creation of supportive, inclusive and accessible environments. The results presented in this section summarized data on the expression of leadership by managers with dyslexia and will be discussed further in the next section.

Discussion

The results of the literature review conducted as a precursor to this study demonstrated that dyslexia is a complex bio, psycho, social phenomena that is not well understood by many, including those who have this invisible disability (Lyon, Shaywitz & Shaywitz, 2003; Leather, Hogh, Seiss & Everatt, 2011). The lack of research linking leadership career progression and dyslexia was a finding in and of itself, indicating this to be an under researched area.

The current study revealed four major themes in response to identifying strategies used by managers with dyslexia to express leadership and accommodations they need to progress as leaders at the same pace as their peers: (a) creative leadership expression, (b) impact of dyslexia on leadership career progression, (c) accommodation's role in leadership career progression, and (d) supportive, inclusive and accessible environments as vital to leadership career progression.

Creative Leadership Expression

Research on well-adjusted adults who have dyslexia demonstrates that they use their creativity to develop unique strategies to cope with dyslexia and that were critical to their success (Goldberg et al., 2003; Illingworth, 2005; Kirby, Silvestri, Allingham, Parrila & La Fave, 2008).

Participants relied on superior oral communication skills to offset challenges with reading and writing (De Beer et al., 2014). Similarly, mining expertise also served to compensate for what participants sometimes described as weakness: difficulties with auditory and/or visual processing of language-based information, oral language skills, short-term and working memory, sequencing and directionality, number skills, and some executive functions like organizational ability and time management (Leather, Hogh, Seiss & Everatt, 2011; Lyon, Shaywitz & Shaywitz, 2003). Mining expertise also helped to increase competence and confidence by leveraging support (Nalavany et al., 2010). When managers felt supported, this increased their confidence, reduced their anxiety and allowed them to focus on the big picture and express leadership more effectively.

Collaboration and consultation provided a foundation through information for navigating the complex bureaucracy of the Public Service. As Nalavany et al. (2010) found in their study, this allows managers who have dyslexia to systematically, prioritize, organize, and accomplish goals while at the same time regulating what can sometimes be overwhelming stress.

Several studies have concluded that only 50 % of adults choose to disclose their dyslexia to their managers or colleagues (Hellendoorn & Ruijssenaars, 2000; Madaus, Zhao & Ruban, 2008; Morris & Turnbull, 2006; Riddick, 2003). Although three out of five participants chose not to directly disclose they had dyslexia, they all referred to it indirectly with their colleagues; a leadership strategy for building relationship with their team members

Based on these results, it would appear that the strategies managers who have dyslexia use to express leadership are based on their understanding of the unique demands of leading in the Public Service. They rely on strong communication and relationship building skills that foster engagement amongst their team members. These findings align with the definition of leadership used in this study (Spisak, O'Brien, Nicholson & van Vugt, 2015).

Leadership involves reciprocal relationships (Kouzes & Posner, 1993; Menard, 2013). The Key Leadership Competencies (2020) developed for leaders in the Public Service such as collaboration, engagement, and respect, are leadership competencies that managers who have dyslexia excel in.

It is hardly surprising, given the hierarchical structure of the Public Service that the leadership styles adopted by the participants, although people oriented and to some extent democratic participative, were at the end of the day quite directive (Nanjundeswaraswamy & Swamy, 2014).

The level of attention to detail and agility required by the management role can leave fewer personal resources left (energy and time) for the manager with dyslexia to express leadership (Nalavany, Carawan & Rennick, 2010) a sentiment cited by several of the participants.

It has been demonstrated in the literature that dyslexia does have an impact on adults' work participation (Leather, Hogh, Seiss & Everatt, 2011). Indeed, de Beer et al. (2014) found that there are more hindering than facilitating factors for adults who have dyslexia. In order to determine the impact of dyslexia on leadership career progression, we needed to explore this further.

Dyslexia is not just a cognitive issue or a problem with reading and writing. However, challenges with reading and writing characterized by difficulties with accurate and/or fluent word recognition, poor spelling and decoding abilities (Lyon, Shaywitz & Shaywitz, 2003) and the resulting consequences of this was the obstacle cited most by participants. These challenges proved career limiting particularly with regards to success on job competitions and in second language evaluations required as part of the selection process, both of which require written examinations.

Many leadership positions in the Public Service are designated bilingual and require specific levels of second language proficiency. This is a major obstacle to career progression for some because of the current inaccessible way language training and evaluation in the Public Service is designed and conducted. This aligns with the literature, given dyslexia is a disorder of language (Leather, Hogh, Seiss & Everatt, 2011; Lyon, Shaywitz & Shaywitz, 2003). Without accommodation, these reading and writing challenges would have a significant impact not only on performance in language training and evaluation but on written exams in competitions as well.

All the participants talked about the extra time and energy it took for them to accomplish work related tasks (McNulty, 2003); how overwhelming and exhausting this is (Goldberg et al., 2003) and the resulting emotional toll. Recent research in Canada has shown that, compared to those without a learning disability, twice as many adults who have learning disabilities say they experience episodes of distress, depression, anxiety, suicidal thoughts (Wilson, Armstrong, Furrie

& Walcott, 2009). This struggle with emotional regulation was reported by the participants of this study as having a negative impact on their career progression.

Stigma including self-stigmatization played a significant role in participants' decisions on whether to disclose or not. There is still a perceived stigma attached to having dyslexia that results in non-disclosure (Major & Tetley, 2019; Nalavany, Carawan & Rennick, 2010) and there continues to be a lack of understanding amongst colleagues (Nalavany, Carawan & Rennick, 2010) which affects disclosure and access to support.

Research on well-adjusted adults who have dyslexia supports the findings of this study. There are elements in the way dyslexia manifests itself as well as the way the participants navigated leadership despite having dyslexia that actually enabled rather than impeded leadership career progression (Goldberg et al., 2003; Illingworth, 2005; Kirby, Silvestri, Allingham, Parrila & La Fave, 2008). Indeed, the research supports the assertion that overcoming dyslexia through perseverance may lead to success. Nalavany, Carawan & Rennick (2010) felt that resilient individuals who accept their dyslexia and have a growing awareness of their personal strengths can lead meaningful and successful careers.

Accommodation's in Role Leadership Career Progression

Blackberries, spell check, video conferencing, Outlook and the autocorrect features of various software were referenced by most of the participants as vital career enablers. However, when asked, none of the participants were aware of any of the newer assistive technologies such as Live Scribe (audio enabled smart note taking device) and CPen's (a hand held scanner) available today. In fact, some of the participants didn't even know what kind of accommodations existed that could help them navigate their leadership roles better. Ripat & Woodgate (2016) found that

although their participants were experienced users and felt assistive technology was key to their meaningful engagement in productivity-related activities, they were often left alone to figure out their emerging needs. They relied on assistive technology, however, stigma around these tools' use in unsupportive work environments were new concerns (Ripat & Woodgate, 2016). The findings of this Canadian study (Ripat & Woodgate, 2016) are a little shocking given that in Canada, there is a legislated duty to accommodate and employers are obligated to decrease barriers and increase accessibility (Canadian Human Rights Commission, 2016) by putting into place measures to remove discrimination at both environmental (creating accessible work environments) and individual (providing assistive technology) levels (Ripat & Woodgate, 2017). None of the participants in this study had any sort of conversation with their leadership on the availability of accommodation. New legislation to ensure a barrier-free Canada, Bill C-81, the Accessible Canada Act (2020) will likely change this.

Supportive, Inclusive and Accessible Environments as Vital to Career Progression

Conscious, inclusive organizational leadership culture for the creation of supportive, accessible work environments is vital to the leadership career progression of managers with dyslexia.

In 2019, the Public Service of Canada launched a new Centre for Wellness, Inclusion and Diversity. Ripat & Woodgate (2017) emphasized the need for employers and supervisors to proactively and positively promote a culture of inclusivity. According to Ripat & Woodgate (2017) an inclusive environment involves administrative or managerial commitment to ensuring the environment is accessible, inclusive and serves to uphold the dignity of individuals.

Limitations

This study was designed to be exploratory, descriptive and inductive for maximum discoverability. Study transferability is limited by the small sample size and the fact it only explored one type of invisible disability (dyslexia) amongst a very westernized sample of well-educated white-collar Public Servants. In addition, despite a national call out across the Canadian Government the sample represented only a few government departments and all the participants were from two eastern provinces Ontario and Quebec. These elements limit our ability to quantify and generalize the findings. Ideally, future research based on a more heterogeneous and larger sample size using a mix methods design would generate more transferable results.

Contribution to the Advancement of Science and Suggestions for Future Research

Currently, the research shows that the self-advocacy strategies used by employees who have dyslexia focus largely on leveraging their strengths, while avoiding disclosure of their disability (Bering, 2016). If we are to facilitate leadership development and expression amongst managers who have dyslexia, we need to create psychologically healthy and safe workplaces that embrace diversity and foster inclusiveness. Organizations and the future leaders who work in them can only benefit from this more proactive approach.

Future research should focus on whether bureaucratic environments like the Canadian Public Service, with their current cultures, are conducive to the expression and development of leadership of managers who have dyslexia and what if any barriers, like stigma, exist that prevent them from achieving their full potential (Logan, 2009). In addition, the influence of an advocate, mentor or role model in helping managers who have dyslexia overcome difficulties, develop coping strategies, self-advocacy and confidence should be explored further (Morgan & Klein, 2000).

The results of this study also support the need for further research on the impact of dyslexia on career progression amongst leaders in the Public Service. The findings may help organizations to more effectively support managers with dyslexia in navigating their careers from an insightful, resilient and strengths-based perspective (Nalavany, Carawan & Rennick, 2010). It will do so by generating proactive discussion on the types of accommodations managers who have dyslexia need in order to progress in their careers at the same rate as their peers who do not have dyslexia and how these can be built into and become part of a more supportive, inclusive and accessible work environment. It may also assist key support personnel in advocating for managers with dyslexia by helping them overcome stigma, self-advocate and ask for accommodations, as well as by creating public policy to ensure inclusive and supportive work places that embrace neurodiversity.

Another area worth exploring is the use of leadership coaching models like Acceptance and Commitment Training (ACT) for leaders and aspiring leaders who have dyslexia. Preliminary studies show promising results that Acceptance and Commitment Training (ACTraining) demonstrates effectiveness in increasing work performance and innovation while reducing work stress and work errors (Moran, 2010). This values-based cognitive behavioral approach to coaching and mentoring works on developing psychological flexibility in the present moment and could help our future leaders who have dyslexia, increase their confidence and competence.

Conclusion

Recognizing personal strengths, having a positive support system, and developing compensatory strategies are all building blocks related to success for leadership expression in future leaders who have dyslexia (Nalavany, Carawan & Rennick, 2010). All they need now is to be given the opportunity to be seen for the great leaders they are or could be.

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CHAPTER 4

DISCUSSION

The results section of the second article presented in this doctoral memoir revealed four major themes: a) creative leadership expression, b) the impact of dyslexia on leadership career progression, c) accommodation's role in leadership career progression, and d) supportive, inclusive and accessible environments as vital to leadership career progression. Each of these themes is explored in this section starting with the Creative Leadership Expression theme.

Creative Leadership Expression

Holding a leadership position in the Public service of Canada comes with inherent challenges and these are exacerbated in an increasingly complex and global economy. The complexity of these challenges increases for those managers dealing with dyslexia (Levy & Murnane, 2004).

In a study entitled the *Future of Governance*, realized by PWC's Public Sector Research Centre (2013) the consensus was that tomorrow's leaders need to be agile, innovative, connected and transparent in order to anticipate and adapt to change, incubate new ideas, develop collaborative networks across sectors for better service deliver, and be highly transparent and accountable. These skills are needed to perform in a rapidly changing and complex Public Service where a number of studies identified the following challenges facing Public leaders:

- the exponential rate of change and complexity;
- swift technological advancement that brings with it new threats to security and privacy;
- complex and hybrid organizational structures;
- empowered, informed and active citizens;
- increased speed of learning and capacity to adapt in order to remain competitive; and
- multi-task leadership requirements (Ferguson, Ronayne & Rybaccki, 2014; Ashbridge

Centre for Public Leadership, 2008; PWC Public Sector Research Centre, 2013; Morales, Bruel & Kamensky, 2008).

The government of Canada conducts an annual Public Service Employee Survey PSES (2019). The survey was administered by Advanis, on behalf of the Office of the Chief Human Resources Officer, Treasury Board of Canada. This comprehensive survey measured federal government employees' opinions about their engagement, leadership, workforce, workplace, workplace well-being and compensation. A total of 182,306 employees in 86 federal departments and agencies responded to the survey, for a response rate of 62.3% (Treasury Board of Canada Secretariat, 2020). Results were adjusted for non-response to better represent the target population and are reported in percentages.

For the purpose of our study, we chose to consult the PSES (2019) survey results for different demographic groups. Specifically, we looked at two categories "supervisor" and "person with a disability: Other disabilities." This latter group served as one of the options available to those respondents who wanted to specify which disability they had. The supervisor category captured anyone in a management position including supervisors, middle managers and executives. Unfortunately, there was no specific category for managers with dyslexia, however, respondents who held a management role may have selected the category "Persons with a disability: Other disability," which included learning disabilities, developmental disabilities and all other types of disabilities. This latter category is referenced in the tables below in the column entitled "Person with a disability: Other Disability." The way this category is defined in and of itself raises some disconcerting questions about the perceptions in the Public Service of employees with learning disabilities which would include dyslexia. The overall segmentation of the survey participants appears to us as non-inclusive and this supports our argument that few studies exist

on leadership expression in managers with dyslexia. Indeed, the annual survey segmentation seems to reinforce exclusion by neglecting to add a manager with disabilities category. The PSES (2019) categories reveal that employees can have a disability but managers do not have them. The categorization alone significantly displays expectations that the Public Service has of those put in a management role: one cannot be both a manager and have a disability. This correlates with findings in our study where managers interviewed were not willing to self-identify as having dyslexia and not willing to ask for accommodation for fear of discrimination.

The lack of a category specifically for managers with learning disabilities in the PSES (2019) survey and the fact that there is no data available on the percentage of managers in the disability category makes any direct comparisons between the results of the current study and PSES (2019) results impossible. It does, however, underscore the fact that there is an important gap in the PSES (2019) survey that should be addressed in future research.

Despite these observations, the PSES (2019) results remain a good source of information that provokes scientific reflection and highlights important correlations with the results of our study. For instance, under the PSES (2019) manager category, in the question relative to their jobs, the results for the statement, "I feel that the quality of my work suffers because of..." identified key challenges (presented in Table 1.0) experienced by all managers in the Public Service. These same challenges were also identified in studies by Ferguson, Ronayne & Rybaccki, 2014; Ashbridge Centre for Public Leadership, 2008; PWC Public Sector Research Centre, 2013; Morales, Bruel & Kamensky, 2008, and reported by the participants in our study. Therefore, if managers in general in the Public Service have expressed that the quality of their work suffers to a great extent because of various workplace or personal challenges, it can only be imagined to what extent the work of managers with dyslexia might be impacted.

Table 4.1 illustrates the differences between results for managers and persons with a disability: other disability (which could have included managers with a learning disability) in the PSES (2019) survey.

Table 4.1

Results per key challenge presented in the PSES (2019)

Challenge	Managers	Persons with a Disability: (Other disability)
Changing priorities	32%	41%
Lack of stability in my department	33%	37%
Too many approval stages.	49%	42%
Unreasonable deadlines.	34%	27%
Having to do the same or more work, but with fewer resources	51%	43%
High staff turnover	37%	37%
Overly complicated or unnecessary business processes	47%	43%
Unreliable technology	29%	38%

One of the key objectives of our study was to identify the strategies used by managers who have dyslexia to express their leadership. In order to get a fulsome understanding of what, if any impact having dyslexia might have on leadership expression, we needed to identify exactly how participants were expressing leadership.

It was highlighted in the literature review that there are several converging competencies inherent to the role of being an effective middle/senior manager regardless of the context. These were identified as the ability to:

- develop managerial effectiveness (time management, prioritization, strategic thinking, decision making);
- inspire, motivate, influence;

- manage and retain talent;
- create and lead teams;
- lead in the context of change; and
- manage stakeholders and build networks. (Gentry, Eckert, Stawiski & Zhao, 2014; Ferguson, Ronayne & Rybacki, 2014).

Based on the list above, it would appear that the need for processing and manual capabilities like time management, reading, math and active listening are in decline. Whereas, the need for creative and social skills such as leadership, analytical thinking and technology design is increasing (Taylor, 2019). The increased focus on leadership, innovation, and relationship building for managers in today's economy, are all things that managers with dyslexia excel in (Logan & Martin, 2012). Indeed, it has been suggested that people with dyslexia may actually have the skills to "future-proof" the workforce (Taylor, 2019).

Although innovation and collaboration are said to be encouraged in the Public Service, the five participants in our study expressed how they had to engage and motivate their employees to contribute in a very specific way to accomplish work tasks that were needed to meet pressing organizational objectives and priorities identified by senior leadership. There essentially is no room to innovate and collaboration is practiced as a top down task assignment.

In their study on successful leadership and delegation in entrepreneurs who have dyslexia, Logan and Martin (2012) concluded that the corporate environment is frustrating and stressful for those with dyslexia and that many of the stressors are socially constructed by an unsympathetic work environment which hobbles career progression for managers with dyslexia by continuing to place emphasis on their weakest competencies instead of capitalizing on their strengths. Without

a major shift towards a more inclusive workplace, this calls into question whether or not corporate environments like the Public Service are conducive to leadership career progression of managers who have dyslexia (Logan, 2009).

We have observed differences in the strategies used by managers in our study and those who responded to the PSES (2019). However, what really stood out in our study was that our participants particularly relied on self-accommodation, delegation, and superior communication skills for building strong relationships with their teams. These findings were echoed in a study by Logan (2012) who found that people with dyslexia who do well in the workplace have learned to be very good at communicating their vision, delegating, leading and team building and harnessing their ability to think differently.

Impact of Dyslexia on Leadership Career Progression

In order to determine the impact of dyslexia on leadership career progression, participants in our study were asked to elaborate on what, if any, obstacles impeded them from progressing in their careers at the same rate as their peers who did not have dyslexia.

The competitive processes for job postings within the Public Service of Canada asks for disclosure of disability, often uses psychometric and other forms of written evaluations to assess weaknesses rather than strengths of candidates and taxes working memory (Hewlett, Cooper, & Jameson, 2018). These methods have been found to be problematic for employees with dyslexia.

All the participants in the current study reported struggling with stress, depression and anxiety. Some of the participants became tearful and visibly upset when reporting on the degree of their frustration. Given the recent emphasis on mental health and psychological health and safety in the workplace by the Government of Canada, (Kalef, et al., 2016) addressing the issue of the

impact of hidden disabilities on mental health should be a priority. In the PSES (2019) all employees with disabilities reported their overall level of work stress as being higher (29%) than that of managers (12%) and that they felt more emotionally drained at the end of the day (45%) than managers (35%) which correlates with the experiences expressed by participants in our study.

In their study on adult perspectives of psychosocial experiences associated with dyslexia Nalavany, Carawan & Rennick, (2010) identified a cluster of statements they called “Why Can’t They See?” connected to participants’ feelings about the lack of public awareness and understanding shown from others regarding their abilities and potential. These sentiments of despair, disengagement and frustration were echoed by participants in our study with statements such as, “If they would only give me a chance.” and “If they could only see my potential.” or “If they only knew how hard I work.” along with statements of resentment resulting from seeing less qualified candidates promoted while they are passed over.

There seems to be a correlation between the sentiments of exclusion, disengagement, and frustration when it comes to career progression expressed by the participants in our study and the results of the PSES (2019). The results of the PSES (2019) clearly show significant differences in the areas of job satisfaction where managers expressed an (82%) job satisfaction rate and a (74%) rate for feeling valued, whereas persons with disabilities expressed a job satisfaction rate of (67%) and felt less valued, (54%). The results of our literature review highlighted the fact that managers with dyslexia really shine when they are in environments that allow them to innovate, show initiative and take risks (Logan, 2009). Therefore, it is somewhat disturbing that on the PSES (2019) only (57%) of employees with a disability agreed with the statement: “I am encouraged to be innovative or to take initiative in my work”; in comparison to managers (78%).

When it comes to the impact of learning disability on career progression the gap becomes even more significant. Almost 18% more managers (60%) agreed with the statement “My department or agency does a good job of supporting employee career development,” when compared to employees who had a learning disability (42%). With similar results in response to the statement, “I believe I have opportunities for promotion within my department or agency, given my education, skills and experience.” where 57% of managers agreed with the statement versus 36% of employees who have a learning disability.

The Table 4.2 adapted from the PSES (2019) specifically addresses the impact of certain issues on career progression with the question, “To what extent have the following adversely affected your career progress in the Federal Public Service over the last 12 months?”

Table 4.2

Impact on Career Progression, Aggregated Ratings from “To a moderate extent” to “To a very large extent”

Issue	Managers	Persons with a Disability: Other disability
Lack of access to language training in my second official language	17%	23%
Lack of access to learning opportunities	22%	40%
Lack of access to developmental programs	26%	43%
Level of education	10%	20%
Discrimination	8%	26%
Accessibility or accommodation issues	4%	30%

The results from the PSES (2019) illustrated in the table above correlate with what the managers with dyslexia in our study told us in terms of issues with the inaccessible language training, being passed over for promotion and denied access developmental programs, etc.

According to the PSES (2019) the Government of Canada defines discrimination as:

treating someone differently or unfairly because of a personal characteristic or distinction, which, whether intentional or not, has an effect that imposes disadvantages not imposed on others or that withholds or limits access that is given to others. There are 13 prohibited grounds of discrimination under the Canadian Human Rights Act; race, national or ethnic origin, color, religion, age, sex, sexual orientation, gender identity or expression, marital status, family status, genetic characteristics (including a requirement to undergo a genetic test, or disclose the results of a genetic test) disability or conviction for an offence for which a pardon has been granted or in respect of which a record suspension has been ordered (para 4).

The results of the PSES (2019) indicate that 13% of managers reported experiencing discrimination in the workplace because of a disability. An even more disturbing finding in the PSES (2019) was that 83% of all employees identifying as having a disability felt they were discriminated against by a person who had authority over them and 65% felt they were discriminated against because of their disability.

Discrimination or fear of discrimination could well be the driver behind the result in our study around non-disclosure and the perception that disclosure could have an adverse effect on the career progression of managers with dyslexia. The participants in our study cited four reasons for not disclosing: (a) belief that having dyslexia will be seen as a weakness, (b) belief that dyslexia is not a disability, (c) for some, thinking that because they were never professionally assessed they did not have the right to disclose, and (d) no need for or motivation to ask for accommodation because they had already figured it out, so no need to disclose.

This fear of disclosure was also reported by Nalavany, Carawan & Rennick, (2010). Non-disclosure becomes an obstacle when it results in participants being unable to ask for, and subsequently benefit from, accommodations available to people with dyslexia. Interestingly, despite being diagnosed as having dyslexia and disclosing in order to get accommodations during

a language evaluation test, one participant in our study was still not accommodated. A study done by Major & Tetley (2019) underscores the link between stigma and non-disclosure with the finding that there is still a perceived stigma attached to having dyslexia and that there continues to be a lack of understanding amongst leadership and colleagues, which affects disclosure and access to support. Indeed, Hewlett et al. (2018) in their study with neurodivergent employees and their employers on the experience of living with neurodivergence and seeking employment, found that 73% of their participants did not disclose in order to avoid discrimination, of those who disclosed during a selection processes, 49% regretted it and 52% experienced discrimination during the selection process. Neurodivergence can be defined as having a style of neurocognitive functioning that diverges significantly from the dominant societal standards of 'normal' such as dyslexia, dyspraxia, ADHD, Autism Spectrum Disorder, etc., (Walker, 2014).

Another important finding in the current study was that most of the participants did not have a fulsome understanding of their dyslexia and little motivation to develop that insight. This becomes an obstacle to career progression in that if you don't understand what dyslexia is and how it impacts you, than it makes it very difficult to identify what accommodations might help you progress in your career at the same rate as your peers who don't have dyslexia.

During data analysis phase of the current study, the researcher identified an unconscious bias; the assumption that dyslexia only creates obstacles to leadership career progression. Unfortunately, although elements of dyslexia that enable career progression were identified, the findings of this study correlated with the De beer et al. (2014) results that there are still far more hindering than facilitating factors in place when it comes to work participation amongst adults with dyslexia which could well interfere with the leadership career progression of managers in the Public Service who have dyslexia.

Accommodation's Role in Leadership Career Progression

Ironically, even after learning a lot about dyslexia as a result of participating in this study, when asked if they would now disclose and/or ask for accommodations the participants all categorically said “no”. This issue was also found in the PSES (2019) result where only 12% of all managers in the Public Service who responded to the survey requested measures to accommodate their needs in the workplace and of those who identified as having a learning disability, still only just over half (55%) requested accommodation.

Both Ripat, & Woodgate (2017) who researched the importance of assistive technology in the productivity pursuits of young adults with disabilities and Nalavany, Carawan & Rennick, (2010) who examined the psychosocial experiences associated with confirmed and self-identified dyslexia in adults, make reference to their participants finding ways of making life living with dyslexia easier and the fact that they figured it out for themselves. Indeed, the participants in our study relied heavily on self-accommodation (tips and tricks to facilitate success) or as Nalavany, Carawan & Rennick, (2010) put it “organizational creativity” to progress in their careers. Of the self-accommodations reported, recruiting a supportive colleague or mentor in the workplace was seen by all but one of our participants as making a difference in terms of success or failure in their career progression.

Supportive, Inclusive and Accessible Environments as Vital to Leadership Career Progression

A consciously, inclusive organizational leadership culture for the creation of supportive, accessible environments was found to be vital to the leadership career progression of managers with dyslexia.

According to the PSES (2019) the government of Canada, defines harassment as:

any improper conduct by an individual that is directed at and offensive to another individual in the workplace, including at any event or any location related to work, and that the individual knew or ought reasonably to have known would cause offence or harm. It comprises objectionable act(s), comment(s) or display(s) that demean, belittle, or cause personal humiliation or embarrassment, and any act of intimidation or threat. It also includes harassment within the meaning of the Canadian Human Rights Act (para 3).

In response to questions related to harassment, the results of the PSES (2019) indicated that only 13% of managers in the Public Service reported having been the victim of harassment on the job compared to 31% of employees who selected the category “other disability.” Alarmingly (70%) employees who selected the category “other disability” reported they had been harassed by someone who had authority over them. These employees also reported being excluded or ignored (58%), humiliated (49%) and subject to unfair treatment (61%). The “other disability” category also may include managers but data to this effect has not been provided by the survey report. We cannot, therefore, say with precision what portion of the 70% of employees who selected the category “other disability” who identified as having been harassed are managers. However, these results correlate with research done by Hewlett et al. (2018) who found that many in leadership positions are still having trouble coming to grips with managing neurodiversity.

In 2019, the Public Service of Canada launched a new Centre for Wellness, Inclusion and Diversity. This is one of many steps taken recently to create a more supportive and inclusive work environments so vital to leadership career progression amongst people with disabilities; particularly invisible disabilities like dyslexia. Ripat & Woodgate, (2017) emphasized the need for employers and supervisors to proactively and positively promote a culture of inclusivity. Yet, in their study Hewlett et al. (2018) found that that 73% of managers they interviewed still did not understand neurodiversity, so there is work to be done.

The lack of knowledge about their dyslexia, the lack of awareness about accommodation perpetuated by stigma and the fear of disclosure make it even more important to enable managers with dyslexia to advocate for themselves. According to Ripat, J. D. & Woodgate, R. L. (2017) an inclusive environment means administrative or managerial commitment to ensuring the environment is accessible, inclusive and serves to too uphold the dignity of individuals. In their study, Hewlet et al. (2018) found that 80% of neurodivergent applicants find that employers are rarely happy to implement reasonable adjustments or accommodations to help deal with systemic barriers. Hopefully, the implementation of new legislation (Bill C81, the Accessible Canada Act) will change this.

One participant in our study pointed out that most people don't want to be accommodated; they just want to fit in. Another shared a particularly poignant metaphor. An interior designer by trade, who was really good at seeing the big picture and thinking outside the box (strengths attributed to dyslexia) commented that one of the mistakes architects often make is laying out a work space without taking into consideration the type of furniture and where it needs to go first; so when the furniture arrives it doesn't fit in.

In closing, and as we move on to the conclusion of our study, the example above is an excellent metaphor on the importance of accessible and inclusive work environments. Instead of accommodating people with invisible disabilities like Dyslexia, Dyspraxia, Dyscalculia, Autism, ADHD, Dysgraphia, or mental health problems, why aren't we taking into consideration their needs at the outset and creating supportive, inclusive and accessible work environments in the first place that will allow them to progress in their careers at the same rate as their peers who do not have a disability? As one participant stated, "I hope one day dyslexia will be just like breathing, nobody is going to be surprised, or judge me for having to breathe."

Conclusion

The purpose of this study was to answer the research questions, “What strategies (if any) do managers who have dyslexia use to express their leadership? What accommodations (if any) do they need to progress in their careers at the same rate as their peers? The outcome has perhaps generated more questions than answers and begun a conversation that is long overdue, as evidenced by the following quote: “Disability and employment statistics are very clear: people with disabilities are less likely to be gainfully employed, less likely to fulfill their potential and more likely to be discriminated against.” (Weinberg & Doyle, 2017, p.57).

The first article presented in this doctoral memoir presented the results of the literature review conducted as a precursor to the study. The findings of this literature review identified a significant lack of research in this area, further corroborated by Doyle & Cleaver (2015) whose academic database search on dyslexia, found that of the over 11,000 studies conducted since 1995, only 41 were related to work. Further, Weinberg & Doyle (2017) found there is a general lack of research focused on disability accommodations and effective interventions, particularly those around general work performance rather than literacy interventions.

The first article also explored the definition, incidence and prevalence of dyslexia and the complexities of both dyslexia and leadership. However, some of the most interesting results were the impact of dyslexia on mental health and self-esteem (Wilson, Armstrong, Furrie & Walcott, 2009) and the role stigma plays in a complex and dichotomous decision whether or not to disclose this disability (Elliot & Grigorenko, 2014). It was also found that the compensatory strategies used by employees were often developed to unintentionally hide their disability from their employers (Bartlett et al., 2010).

The second article, which presented the results of our study, identified four themes (a) creative leadership expression, (b) impact of dyslexia on career progression, (c) accommodation's role in leadership career progression, and (d) supportive, inclusive & accessible environments as vital to leadership career progression and introduced the concept of neurodiversity (Armstrong, 2011; Summer & Brown, 2015). This study made it particularly clear that due to stigma, managers with dyslexia are not disclosing their disability, which results in their not being able to access the accommodations they need to progress in their leadership careers at the same rate as their peers. Self-stigma interferes with the development of a clear understanding of the unique manifestation of each individual's dyslexia which in turn impacts their leadership career progression by limiting knowledge of their rights, available assistive technology and other supports that could facilitate that leadership career progression.

Limitations

When this study was proposed we didn't know, what we didn't know, hence it was designed to be exploratory, descriptive and inductive for maximum discoverability. However, this limits the ability to quantify and generalize about findings.

Study transferability is limited by the small sample size, the fact it only explored one type of invisible disability (dyslexia) and the specific participant demographic; a very westernized sample of well-educated white collar Public Servants. In addition, despite a national call out across the Canadian Government the sample represented only a few government departments and all the participants were from two eastern provinces Ontario and Quebec. Ideally, future research based on a more heterogeneous and larger sample size using a mix methods design would allow for more transferable results.

Contribution to the advancement of science and suggestions for future research

Currently, research shows that the self-advocacy strategies used by employees who have dyslexia focus largely on leveraging their strengths, while avoiding disclosure of their disability (Bering, 2016). If we are to facilitate leadership development amongst managers who have dyslexia, we need to create psychologically healthy and safe workplaces that embrace diversity and foster inclusiveness. Organizations and the future leaders who work in them can only benefit from this more proactive approach.

It has been suggested that future research should focus on whether bureaucratic, corporate environments like the Canadian Public Service with their current cultures are conducive to the development of managers who have dyslexia or on identifying whether or not there are barriers, like stigma, that prevent them from achieving their full potential (Logan, 2009). This is further highlighted by the PSES (2019) which doesn't even have a category for managers with disabilities and lumps learning disability in with developmental disabilities. These two factors speak volumes to the perception of managers with learning disabilities like Dyslexia in the Public Service. It has also been suggested that future studies should explore the influence of an advocate, mentor or role model in helping managers who have dyslexia overcome difficulties, develop coping strategies, self-advocacy and confidence (Morgan & Klein, 2000).

The Westminster Achieve Ability Commission for Dyslexia and Neurodivergence (Hewlett, Cooper, & Jameson, 2018) identified the following ten barriers to employment to people who are neurodivergent, the majority of which have dyslexia:

1. Lack of awareness at all levels across government.
2. Consequences of disclosure: discrimination, stress, lack of career progression.

3. Inadequate implementation of measures by Government.
4. Poorly conceived accommodations that focus on individual rather than systemic barriers.
5. Policy and legislation around equality and accessibility that is not being adequately implemented and difficult, stressful, expensive measures required to secure legal protection.
6. Inaccessible psychometric tests used in selection processes.
7. Recruitment and selection procedures that are too language based, test literacy, working memory, and are often more difficult than actual job which creates undue stress and anxiety.
8. Current design of recruitment and selection procedures are not accessible and don't incorporate assistive technology.
9. Selection and career progression depend on being neurotypical.
10. Lack of awareness leads to treating neurodivergent employees as the problem rather than systemic issues which negatively impacts performance evaluations.

The catalyst for Hewlett, Cooper, & Jameson's (2018) study was the United Kingdom's commitment to increasing the number of people with disabilities in employment. Their results support the findings of this current study given that the barriers identified were so very similar to the barriers to leadership expression and career progression identified in the current study by the participants; managers who have dyslexia in the Government of Canada.

The results of this current study support the need for further research on the impact of dyslexia on career progression amongst managers with dyslexia and perhaps other hidden disabilities such as ADHD, Autism Spectrum Disorder, and mental health disorders, particularly around systemic barriers and potential mitigation strategies. The findings may help organizations to be more effective in assisting managers with dyslexia to navigate their careers from a resilient, strengths-based perspective while weighing risks-based on self-knowledge (Nalavany, Carawan & Rennick, 2010). It will do so by generating discussion on both the types of accommodations managers who have dyslexia need in order to progress in their careers at the same rate as their peers and systemic changes that should be built into and become part of a more supportive, inclusive and accessible work environment. It may also assist key internal resource personnel such as Employees Assistance Program's Mental Health Professionals, and HR Advisors working in disability management, recruitment and leadership development in advocating for managers with dyslexia by helping them overcome stigma, self-advocate and ask for accommodations, as well as by creating public policy to ensure inclusive and supportive work places that embrace neurodiversity.

Proactive steps need to be taken to create a consciously inclusive, accessible and supportive work environment in order for managers with dyslexia to progress at the same rate as their peers who do not have dyslexia. In *Psychology at work: Improving wellbeing and productivity in the workplace*, Weinberg & Doyle (2017) emphasize the need for more evidence based policies to design more effective interventions. Table 4.3 below, adapted from Weinberg & Doyle (2017) cites a number of recommended practices for both employers and employees.

Table 4.3

Recommended Employer and Employee Practices to increase accessibility and inclusiveness

Employer Practices	Employee Practices
Acknowledge that disclosure rates do not accurately reflect the amount of neurodiversity in the workplace. Assume a minimum of 10 per cent neurodiversity rate affecting executive functions.	Embrace your diversity, name the problem, get assessed, do some research, become informed, advocate for yourself.
Actively create a culture of disclosure to encourage employees to seek the right support when they need it.	Talk to your employer, identify for them your functional limitations. Be clear about your needs. Keep records about assessments, coaching and accommodations that worked well before.
Conduct a workplace needs assessments and implement any strategies and equipment that are recommended immediately following a disclosure.	Contact your Disability Management Advisor and internal Employee Assistance Program. Read the policy and legislation with regards to duty to accommodate, disability management, and accessible workplaces.
Adopt working practices that support neurodiverse people, such as minimising sensory overload like noise and light in busy, open plan office spaces, and use of clearly printed, simple documentation.	Use your assistive technology.
Employer training and support for line managers.	Ask for regular communication and feedback from employer

Note: Adapted from Weinberg, A. & Doyle, N. (2017) Psychology at work: Improving wellbeing and productivity in the workplace. Leicester, UK: The British Psychological Society.

Similar recommendations were put forward in the Westminster Achieve Ability Commission for Dyslexia and Neurodivergence Report (Hewlett, Cooper, & Jameson, 2018) which also supported the findings of this current study. These included:

- Awareness and training programs to facilitate culture change and a more proactive approach at all levels based on the social model of disability (Hogan, 2019) which puts the emphasis on the systemic barriers that disable someone with an impairment, and the effects this has on their functioning.

- Development of evidence-based guides built on best practices for pivotal Human Resources (HR) such as managers, HR Advisors (Labour Relations, Occupational Health and Safety, Disability Management, Talent Management, internal Mental Health Professionals) and Union Representatives.

Consideration should be given to the accessibility of all written information which should be presented in plain English or French using bullet points, avoiding black print on white paper with access to assistive technology, screen readers and spell checkers and easy changes of colour and contrast.

- Engage employees in the identification and selection of accommodations that work best for them. The tick box on disclosure used in selection processes should be replaced with an evidence-based menu of accommodations to select from.
- Redesign the selection, language and performance evaluation processes to use practical assessments of a range of strengths rather than weaknesses and eliminate psychometric and other written tests. Adapted from (Hewlett, Cooper, & Jameson, 2018).

There is a need for more outcome research on these recommendations, their implementation and effectiveness in mitigating some of the existing systemic barriers to leadership career progression amongst managers who have dyslexia.

Increasingly the trend is to move away from the medical model of diagnosing a disability and focusing on weakness or deficits, towards a more socially inclusive recognition that differences in thinking ability are as normal a variation in people as are differences in skin colour, (McGee, 2012). This is about normalising diversity by focusing on and leveraging the positive strengths of unique cognition, rather than seeing them as deviations from the norm (Armstrong,

2010) while at the same time addressing the systemic issues that create barriers for neurodivergent employees in the workplace.

Another area worth exploring is the use of leadership coaching models like Acceptance and Commitment Training (ACT) for leaders and aspiring leaders who have dyslexia. Preliminary studies show promising results that Acceptance and Commitment Training (ACTraining) demonstrates effectiveness in increasing work performance and innovation while reducing work stress and work errors (Moran, 2010). This values-based cognitive behavioral approach to coaching and mentoring works on developing psychological flexibility in the present moment and could help our future leaders who have dyslexia, increase their confidence and competence.

Recognizing personal strengths including creativity of thought, having a positive support system, and developing compensatory strategies are all building blocks related to success for future leaders who have dyslexia (Nalavany, Carawan & Rennick, 2010). However, until we start to address the systemic issues in the workplace that foster discrimination and create consciously inclusive, accessible and supportive work environments these individualised efforts may fall short. It is time to start talking more openly about dyslexia in the workplace and to give those who have it the opportunity to be seen for the strong leaders they are.

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APPENDIX A

CERTIFICATES OF ETHICS APPROVAL



Sherbrooke, le 17 mai 2017

Mme Erika Lefebvre
 FLSH Psychologie (études)
 Université de Sherbrooke

NIR#F_2017-1446_2017-13-LSH/Lefebvre

Objet : Approbation finale de votre projet de recherche

Madame,

Le Comité d'éthique de la recherche – Lettres et sciences humaines a reçu les clarifications ou les modifications demandées concernant votre projet de recherche intitulé « **Une étude exploratoire des stratégies utilisées par les gestionnaires dyslexiques dans l'expression du leadership** ».

Les documents suivants ont été analysés :

- Formulaire de réponse aux conditions (F-20)
- Projet de recherche (CER_LSH_2017_13_Erika Lefebvre_v3_avril 2017.docx) [date : 05 mai 2017, version : 3]

Le comité a le plaisir de vous informer que votre projet de recherche a été **approuvé**.

Cette approbation étant valide jusqu'au **18 mai 2018**, il est de votre responsabilité de remplir le formulaire de suivi (formulaire F5-LSH) que nous vous ferons parvenir annuellement. Il est également de votre responsabilité d'aviser le comité de toute modification au projet de recherche (formulaire F4-LSH) ou de la fin de votre projet (formulaire F6-LSH). Ces deux derniers formulaires sont disponibles dans Nagano.

Le comité vous remercie d'avoir soumis votre demande d'approbation à son attention et vous souhaite, Madame, le plus grand succès dans la réalisation de cette recherche.

Olivier Lavendière
 Président du CÉR - Lettres et sciences humaines
 Professeur au département de psychologie
 Faculté des lettres et sciences humaines

c. c. Vice-décanat à la recherche
 Directeur ou directrice de recherche (le cas échéant)
 Service d'appui à la recherche, à l'innovation et à la création (le cas échéant)



Canada Border
Services Agency

Agence des services
frontaliers du Canada

OCT 12 2017

PROTECTED B

Erika Lefebvre

Canada Border Services Agency (CBSA)

Dear Ms. Lefebvre:

I have received and reviewed the Conflict of Interest Report dated July 28, 2017 which you submitted pursuant to the *Values and Ethics Code for the Public Sector (VECPS)*, the *Policy on Conflict of Interest and Post-Employment (Policy)*, and the *CBSA Code of Conduct (CBSA Code)*. You informed me that you were looking for the Agency's support to use Government of Canada Tools (National Managers Community GC Connex) to post a call for participants for an exploratory qualitative doctoral research study on how managers who have dyslexia express their leadership. You have mentioned that the message will be sent out by the National Managers Community and the expressions of interest directed to your personal email account.

The information provided by your manager has been reviewed in light of your responsibilities and obligations outlined in the VECPS, the Policy and the CBSA Code as well as your work description as an Employee Assistance Program (EAP) Coordinator/Counsellor (PE-04), Labour Relations and Compensation Division, Human Resources Branch. On the basis of this review, there is a low risk of potential and apparent conflict of interest between the above-mentioned activity and your present duties at the Agency, as there could be an overlap of function or clientele between your official duties and your duties with the outside entity and as GC Connex is only accessible to employees of the Government of Canada. However, this can be mitigated by the following measures, some of which you have proposed yourself. By following these measures, you can use GC Connex in order to recruit participants for your doctoral research.

It is incumbent upon you, as a government employee, to manage your affairs in a way that can withstand the closest public scrutiny. You should not knowingly take advantage of, or benefit from; information that is obtained in the course of your official duties and responsibilities as an EAP Coordinator/Counsellor and that is not generally available to the public.

You should also refrain from soliciting CBSA employees during official work hours. This includes distributing flyers to advertise or any other marketing material or conversations with colleagues while on-duty. You cannot use your official title or mention that you are an employee of the CBSA or use the identity of the CBSA to promote this outside activity on social media sites (e.g. website, Facebook, Twitter, blogs, etc.).

.../2

Canada

No premise, equipment, systems, confidential or protected information or resources belonging to the CBSA are to be used during the course of this activity. This would include computers, phone/fax numbers or e-mail addresses. This means, for example, that a participant cannot contact you using your official email. The call for participants should include the stipulation that the researcher is to be contacted after working hours at the coordinates provided.

Should one of the participants contact you in your official capacity, you should recuse yourself and refer the participant to a colleague/other resources. Additionally, you should not recruit participants with whom you are currently working in your official capacity or that you have worked with.

You must ensure that this outside activity does not impair your availability, capacity, or efficiency in performing your official duties. Finally, all activities related to your services must be conducted on your personal time or on pre-approved leave. I understand that you have already taken steps to ensure this.

Should your outside activities or your duties with the CBSA change, please notify me in writing in order to conduct a further assessment.

In accordance with Section 68 (1) of the *Public Service Labour Relations Regulations*, you may present a grievance against my decision no later than 35 days after receipt of this letter.

Thank you for bringing the matter to my attention. Please let me know if you have questions with respect to this decision.

Yours truly,

Matc Thibodeau
Director General
Labour Relations and Compensation

c.c. Labour Relations, NHIQ
Employee's Manager

APPENDIX B

STUDY RECRUITMENT COMMUNICATIONS

Email from the National Managers Community Approving the Posting of the Call for
Participants on their GC Connex Web Page

From: Deighton, Abram (CSPS/EFPC) [<mailto:abram.deighton@canada.ca>]
Sent: October 23, 2015 1:42 PM
To: Lefebvre, Erika: TC / TC
Cc: Lefebvre, Erika; McKee, Brian (CSPS/EFPC)
Subject: RE: Research

Hi Erika,

Great to hear from you and congrats on the new assignment. I'm copying Brian on this to bring him into the loop. This sounds like fascinating research. I'm sure we, or you personally, could post a call out through our GC Connex group. Let me know if there's anything else you need from me by way of support.

Regards,

Abe Deighton
 Manager / Gestionnaire
 National Managers' Community / Communauté nationale des gestionnaires
 241 de la Cité-des-Jeunes Blvd. (Asticou 1635)
 Gatineau, QC
 J8Y 6L2
 Tel : (613)-301-6652

From: Lefebvre, Erika [<mailto:erika.lefebvre@tc.gc.ca>]
Sent: October-23-15 9:47 AM
To: Deighton, Abram (CSPS/EFPC)
Cc: 'erika.lefebvre@cbsa-asfc.gc.ca'
Subject: Research

Good morning:

I was the Transport Canada representative on the National Manager's Community (NMC) but am currently on assignment with Canada Border Services Agency (CBSA). At the last meeting I attended, I had mentioned that I would be undertaking some research starting in 2016 on managers in the Public Service and was invited by I think Brian McKee to post the call for participants in this study on the NMC's GC Connex page.

This research is part of my doctoral studies in psychology and will look at what strategies managers who have dyslexia use to express their leadership. I need something from the NMC in

writing (a response to this email will suffice) to include in my research proposal that indicates that the NMC supports the call for participants.

If you have any questions please don't hesitate to contact me at CBSA 613-957-3474

Erika Lefebvre, M.Ed. C.Psych

Call for Participants

Are you a manager, supervisor, or team lead? Do you have dyslexia (professionally diagnosed or based on your own self-evaluation)? If so, then clearly we need to hear your stories and experiences. Therefore, you are invited to participate in an exploratory study on the strategies managers, supervisors, or team leaders who have dyslexia use to express their leadership.

The purpose of the current study is to describe, from the perspective of managers, supervisors, or team leaders who have dyslexia the strategies they use to express leadership.

The objectives are to:

- identify strategies used by managers who have dyslexia (strategic thinking, actions, effective) to express their leadership;
- identify what accommodations managers who have dyslexia need to progress in their careers and as leaders at the same rate as their non-dyslexic peers.

Participating in this study will provide you with an opportunity to share those strategies and lessons learned throughout your careers. Given that to date there is little research in this area, your insight may influence future decision makers around creating a more inclusive workplace where managers with special needs are provided the support and accommodations they need to perform and excel at the same pace as their peers who do not have special needs.

In order to participate in this study you must be:

- able to speak, read and write in English;
- able to understand and give consent;
- managers, supervisors, or team leads (up to the EX minus one level; last designated management level before becoming an executive);
- employed by the Federal Public Service; and,
- have dyslexia (as supported by psychometric screening).

For the purpose of this study you will be asked to take part in a thirty-minute screening process. If you meet the selection criteria, you will then be asked to participate in an interview that will

take approximately one hour. At any point in the research and for any reason, you have the right to withdraw.

If you are interested in participating please contact:

Erika Lefebvre, M.Ed. Psych

Email Invitation to Participate in the Screening Process

Good day:

Thank you for volunteering to participate in this important study. In order for us to ensure you meet all the selection criteria, we need to collect a little more information from you.

Attached you will find the following three documents:

- Statement of confidentiality
- Basic demographic questionnaire;
- Revised Adult Dyslexia Checklist; and,
- Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

All four documents are compatible with most assistive educational technology and/or the ease of use (accessibility) software on most computers. However, if you require assistance, please contact the researcher directly at the coordinates provided below.

We ask that you complete all four documents by the close of business, insert date two weeks from date sent; scan the four documents and return them by encrypted email to:

Upon completion, these questionnaires will be classified
“Protected B” as per the Privacy Act.

If you do not have encryption software on your computer, then please send hard copies of the questionnaires, as per Protected B security procedures to the coordinates below. If you have any questions, please do not hesitate to call me directly.

Thank you.

Erika Lefebvre, M.Ed. Psych

Email Notifying Participants that they had Successfully Passed the Screening Process and Were Selected to Participate in the Study

Congratulations! You have successfully completed the screening process and have met the eligibility criteria selected to participate in this important study on strategies that managers, with dyslexia use to express leadership.

You are invited to participate in an hour-long interview. Please note the date, time and location of your interview or the date and time of the conference call and (PIN) for telephone interviews:

Date:

Hour:

Location or Teleconference number and PIN:

If you are unable to attend the interview at the suggested time, please contact the researcher directly at the coordinates below to arrange a new time.

Erika Lefebvre, M. Ed. C.PSYCH

Email Notifying Participants that They Had Completed the Selection Process but Had Not Met
the Selection Criteria

You have completed the selection process, but you do not meet the eligibility criteria; therefore, you were not retained to participate in this study.

I would like to thank you for your interest. If you have any questions, please do not hesitate to contact me.

Heartfelt thanks

Erika Lefebvre, M. Ed. C.PSYCH

APPENDIX C

SCREENING INSTRUMENTS

Bangor Dyslexia Checklist

Please answer Yes or No. Do not miss any questions. If you are in any doubt, answer whichever feels like the truer answer.

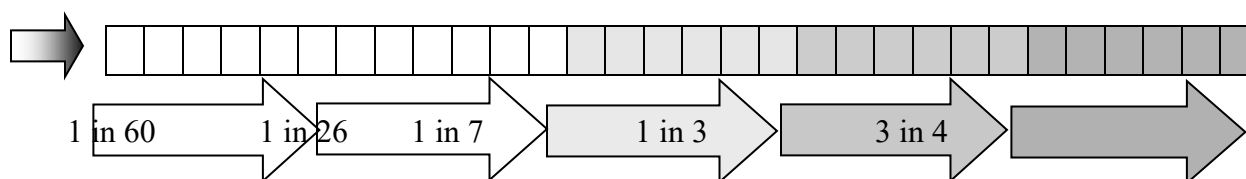
1	When using the telephone, do you get the numbers mixed up when you dial?	YES	NO
2	Is your spelling poor?	YES	NO
3	When writing down the date, do you often make mistakes?	YES	NO
4	Do you mix up dates and times and miss appointments?	YES	NO
5	Do you find forms difficult and confusing?	YES	NO
6	Do you find it difficult to take messages on the phone and pass them on correctly?	YES	NO
7	Do you mix up bus numbers like 35 and 53?	YES	NO
8	Do you find it difficult to say the months of the year forwards in a fluent manner?	YES	NO
9	When you were at school, did you find it hard to learn the multiplication or times tables?	YES	NO
10	Do you take longer than you should to read a page of a book?	YES	NO
11	Do you find difficulty in telling left from right?	YES	NO
12	Did you find it difficult to decide how to answer these questions?	YES	NO

This checklist does not attempt to record the talents, skills or potential linked with dyslexia. The checklist is organised around some of the key difficulties experienced by people with dyslexia in terms of reading, spelling, memory, organisation and sequencing.

Question Number	1	2	3	4	5	6	7	8	9	10	11	12
Points Scored	3	3	3	3	3	2	2	2	2	2	2	3

Count the points for each YES answer e.g. 3 marks for question 1.

Mark one box for each point scored to find your chance of being dyslexic.



This tells you how likely you are to be dyslexic. 1 in 7 is an above average chance.

Of course, it is always possible for you to be the 1 in 60 with a low score who is dyslexic, or the 1 in 4 with a very high score who is not dyslexic. Your own feelings about the matter can sometimes be more significant than the score.

This new version of the adult dyslexia screening has been piloted with a significantly larger sample than previously, across a wide range of educational experience. Results were compared with 140 people diagnosed as dyslexic.

Miles TR. The Bangor Dyslexia Test. Cambs: LDA; 1997.

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

Instructions:

Symptoms

1. Ask the patient to complete both Part A and Part B of the Symptom Checklist by marking an X in the box that most closely represents the frequency of occurrence of each of the symptoms.
2. Score Part A. If four or more marks appear in the darkly shaded boxes within Part A then the patient has symptoms highly consistent with ADHD in adults and further investigation is warranted.
3. The frequency scores on Part B provide additional cues and can serve as further probes into the patient's symptoms. Pay particular attention to marks appearing in the dark shaded boxes. The frequency-based response is more sensitive with certain questions. No total score or diagnostic likelihood is utilized for the twelve questions. It has been found that the six questions in Part A are the most predictive of the disorder and are best for use as a screening instrument.

Impairments

1. Review the entire Symptom Checklist with your patients and evaluate the level of impairment associated with the symptom.
2. Consider work/school, social and family settings.
3. Symptom frequency is often associated with symptom severity, therefore the Symptom Checklist may also aid in the assessment of impairments. If your patients have frequent symptoms, you may want to ask them to describe how these problems have affected the ability to work, take care of things at home, or get along with other people such as their spouse/significant other.

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

Patient Name	Today's Date					
Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment.		Never	Rarely	Sometimes	Often	Very Often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?						
2. How often do you have difficulty getting things in order when you have to do a task that requires organization?						
3. How often do you have problems remembering appointments or obligations?						
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?						
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?						
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?						
Part A						
7. How often do you make careless mistakes when you have to work on a boring or difficult project?						
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?						
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?						
10. How often do you misplace or have difficulty finding things at home or at work?						
11. How often are you distracted by activity or noise around you?						
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?						
13. How often do you feel restless or fidgety?						
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?						
15. How often do you find yourself talking too much when you are in social situations?						
16. When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?						
17. How often do you have difficulty waiting your turn in situations when turn taking is required?						
18. How often do you interrupt others when they are busy?						
Part B						

The Value of Screening for Adults with ADHD

Research suggests that the symptoms of ADHD can persist into adulthood, having a significant impact on the relationships, careers, and even the personal safety of your patients who may suffer from it. Because this disorder is often misunderstood, many people who have it do not receive appropriate treatment and, as a result, may never reach their full potential. Part of the problem is that it can be difficult to diagnose, particularly in adults.

The Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist was developed in conjunction with the World Health Organization (WHO), and the Workgroup on Adult ADHD that included the following team of psychiatrists and researchers:

- Lenard Adler, MD
Associate Professor of Psychiatry and Neurology
New York University Medical School
- Ronald C. Kessler, PhD Professor,
Department of Health Care Policy
Harvard Medical School
- Thomas Spencer, MD
Associate Professor of Psychiatry
Harvard Medical School

As a healthcare professional, you can use the ASRS v1.1 as a tool to help screen for ADHD in adult patients. Insights gained through this screening may suggest the need for a more in-depth clinician interview. The questions in the ASRS v1.1 are consistent with DSM-IV criteria and address the manifestations of ADHD symptoms in adults. Content of the questionnaire also reflects the importance that DSM-IV places on symptoms, impairments, and history for a correct diagnosis.⁴

The checklist takes about 5 minutes to complete and can provide information that is critical to supplement the diagnostic process.

References: 1. Schweitzer JB, et al. *Med Clin North Am.* 2001; 85(3):10-11, 757-777. 2. Barkley RA. *Attention Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment.* 2nd ed. 1998. 3. Biederman J, et al. *Am J Psychiatry.* 1993; 150:1792-1798. 4. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision.* Washington, DC, American Psychiatric Association.

APPENDIX D

CONSENT FORM



INFORMATION AND CONSENT FORM

You are invited to participate in a research project. This document provides information on the terms and conditions of this research project. If there are any words or paragraphs that you do not understand, do not hesitate to ask questions. To participate in this research project, you will need to sign the consent at the end of this document and we will provide you with a signed and dated copy.

Title of the Project

An exploratory study on the strategies used by managers who have dyslexia to express leadership

Persons Responsible For the Project

The name of researcher who is responsible for the research project: Erika Lefebvre M. Ed.
C.PSYCH

The project is undertaken within the framework of my Doctorate in Psychology for practicing psychologists at the University of Sherbrooke.

The name and contact information of the dissertation director:

Sophie Menard, PhD
 Director, Leadership, Learning and Organizational Development
 Ottawa University
 Human Resources
 Tabaret Hall
 550, Cumberland, Suite TBT 012
 Ottawa ON K1N 6N5
 Telephone: 613-562-5800 Extension 1388
 Email: smenar2@uOttawa.ca

The Project's Objectives

The aim of this study is to describe, from the point of view of managers with dyslexia, the strategies they use to express leadership.

In this research, the strategies used by dyslexic managers to express leadership will be described and the coping measures they need to overcome barriers and progress in their leadership careers at the same pace as their non-dyslexic peers will also be described.

Reason and Nature of Participation

Your participation in this study will be in two stages, validation of the eligibility criteria (psychometric screening) and an interview.

Your participation will be required for [1] period of approximately [30] minutes (psychometric screening). During this time, you will be asked to complete two screening questionnaires and a demographic questionnaire. You will receive the questionnaires via encrypted e-mail. You will also have to return your completed questionnaires to the researcher two weeks after receiving them.

Your participation will also be required for an interview of approximately [1] hour. This interview will take place at your convenience, according to your availability, in person or by phone, Skype, or video conference. You will have to answer questions about the strategies you use to express leadership. This interview will be audio recorded.

Benefits That May Arise from Participation

Your participation in this research project will allow you to share strategies and lessons learned throughout your career. Given that very little research has been done in this area at this time, your ideas can influence future decisions about creating a more inclusive workplace where employees with special needs are supported, and receive the accommodations they need to do their job and excel at the same pace as their peers who have no special needs. In addition, it will contribute to the advancement of knowledge about dyslexia and leadership.

Disadvantages and Risks That May Arise from Participation

Your participation in the research should not result in any significant disadvantages, with the exception of the giving of your time. You can ask for a break or continue the interview at another time that suits you.

At the interview, it is possible that talking about your experience may trigger a difficult emotional reaction. In this case, we encourage you to call your Employee Assistance Program at _____; or your family doctor for support and/or treatment should you feel the need.

Right of Withdrawal without Prejudice to Participation

It is understood that your participation in this research project is entirely voluntary and that you remain free to terminate your participation at any time without having to justify your decision or to suffer any prejudice whatsoever.

Should you withdraw from the study, would you like to have the audio and/or written records destroyed?

Yes _ No _

You will always be able to reverse your decision. If so, the researcher will ask you explicitly if you wish to change it.

Confidentiality, Sharing, Surveillance and Publications

During your participation in this research project, the researcher responsible will collect and record the information about you in a research file. Only the information necessary for the proper conduct of the research project will be collected. They may include the following information: name, sex, date of birth, audio recordings, results of all tests and interviews that you will have to undergo during this project, etc.

All information gathered during the research project will remain strictly confidential to the extent permitted by law. In order to preserve your identity and the confidentiality of this information, you will only be identified by a code number. The key of the code linking your name to your research file will be retained by the researcher in charge of the research project.

The researcher responsible for the study will use the data for research purposes in order to meet the scientific objectives of the research project described in this information and consent form.

Data from the research project may be published in scientific journals or shared with others during scientific discussions. No publication or scientific communication will contain any personally identifiable information. Otherwise, your permission will be requested in advance.

The data collected will be kept under lock and key for a period not exceeding 5 years. After this period, the data will be destroyed. No information identifying those who participated in the study will appear in any documentation.

For monitoring and control purposes, your research file could be accessed by a person mandated by the Research Ethics Committee Letters and Humanities or by statutory government agencies. All these individuals and organizations adhere to a privacy policy.

Audio Recording

Audio recordings of all interviews will be created. We would like to use the latter, with your permission, for training purposes and/or scientific presentations. However, there is no need to agree to participate in this project. If you refuse, the records concerning you will be destroyed at the end of the project in the respect of confidentiality.

Do you allow us to use your recordings for scientific training or presentations and keep them with your research data?

Yes No

Research Results and Publication

We will inform you of the results of the research and any resulting publications, if necessary by email and/or by telephone. We will preserve the anonymity of those who participated in the study.

Monitoring Ethical Aspects and Identification of the Chair of the Research Ethics Board Humanities and Social Sciences

The Research Ethics Committee Letters and Humanities has approved and is following up on this research project. In addition, the Board will pre-approve any revisions and amendments to the Information and Consent Form, as well as to the research protocol.

You can talk about any ethical problem concerning the conditions in which your participation in this project is being held with the project leader or explain your concerns to Mr. Olivier Laverdière, Chair of the Research Ethics Committee Letters and Humanities, communicating Through its secretariat at the following number: 819-821-8000 poste 62644 or toll free at 1 800 267-8337 or by email at: cer_lsh@USherbrooke.ca.

Free and Informed Consent

I, _____ (print name), declare that I have read and/or understood this form and have received a copy. I understand the nature and purpose of my participation in the project. I had the opportunity to ask questions that were answered, to my satisfaction.

I hereby agree to participate in the project.

Signature of Participant: _____

Dated at _____, the _____

Statement of Responsibility of Researchers

I, _____ Principal researcher of the study, declare that only the researcher and her research director are responsible for the conduct of this research project. We undertake to comply with the obligations set forth in this document and also to inform you of any elements that might modify the nature of your consent. I also certify that I have explained to the interested participant the terms of this form, have answered the questions he or she has asked me in this regard and have clearly indicated to him/her that he or she remains at all times free to terminate participation in the research project described above. I undertake to ensure that the objectives of the study are respected and that confidentiality is respected.

Signature: _____ Done at _____ on _____ 201_.

APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE

Demographic Information Survey

Participant #: _____

Name: _____

Telephone (work): _____ Messages: Yes ___ No ___

Telephone (home): _____ Messages: Yes ___ No ___

Cell phone: _____

Email: _____

Emergency contact

Name: _____

Relationship to participant: _____

Telephone (work): _____ Messages: Yes ___ No ___

Telephone (home): _____ Messages: Yes ___ No ___

Cell phone: _____

Email: _____

1. Are you Public Servant working for the Government of Canada?

- Yes
 No

If you answered no to the above question you do not meet the selection criteria for this study and need go no further. Thank you for your interest.

2. If yes, please specify which Department or Agency do you work for?

3. Are you a manager, supervisor or team leader? Please check only one category:

- Manager
 Supervisor

- Team Leader

If you are not a manager, supervisor or team leader you do not meet the selection criteria for this study and need go no further. Thank you for your interest.

4. As a manager, supervisor or team leader what is your job title, group and level?

Job title: _____

Group: _____

Level: _____

5. As a manager, supervisor or team leader how many years of experience do you have?

- 0-3
 3-5
 5-10
 10-15
 20+

6. Do you have dyslexia?

- Yes
 No

If you answered no to the above question you do not meet the selection criteria for this study and need go no further. Thank you for your interest.

7. If you answered yes to the last question, were you professionally assessed or are you self-diagnosed? Please select only one of the choices below:

- Professionally assessed by a psychologist or neuro psychologist (had a psychoeducational or neuropsychological assessment that included the use of psychometric tests)
 Professionally assessed by a psychologist or other health professional but there was no psychometric testing
 Self-diagnosed (you have a family history, have done some research, had a hard time in school, you just know)

8. If you were professionally assessed please provide the date of your last assessment:

APPENDIX F

SEMI-STRUCTURED INTERVIEW GUIDE

Semi-Structured Interviews

Interview Guide

Title of the study: An Exploratory Study of the strategies used by managers who have dyslexia to express their leadership.

The objectives of the study are to:

- determine the strategies used by managers who have dyslexia to express their leadership;
- determine the types of accommodation measures managers who have dyslexia need in order to progress in their careers at the same pace as their peers who do not have dyslexia.

Goal: to collect detailed information on the expression of leadership by managers who have dyslexia who participate in this study.

Duration of each interview: 60 minutes

Introduction: 10 minutes duration

- Present the research and the purpose of the interview.
- Invite the participant to put himself in a position of reflection during the interview.

Leadership theme: 20 minutes

Questions	Probing Questions
How do you understand the expression of leadership?	Can you elaborate on this a little more?
Do you adopt a particular style of leadership?	Please explain further what led you to adopt this style of leadership.
What strategies do you apply (strategic thinking, decision making, effective actions and behaviors) to exercise your leadership?	Can you give me some examples of situations where you used these strategies to express your leadership?

Context theme (types of accommodations required to progress as a manager at the same pace as their non-dyslexic peers): 20 minutes duration

Questions	Probing Questions
What types of obstacles did you encounter because of your dyslexia?	Describe a situation where these obstacles have had a significant impact on how you express your leadership.
In your opinion, would your dyslexia have prevented you from progressing in your management career?	If so, describe a situation where your dyslexia would have prevented you from progressing in your management career.
How did having dyslexia it more difficult for you to access a management position compared to your peers?	When did it happen? Who else was involved? What impact did it have on you?
What types of accommodations do you think would help you reach your full managerial potential?	What do you mean? What are your expectations?
Please tell me some of the contextual elements (people, organizational changes, etc.) that influenced these strategies.	When does it happen? Who else was involved? What impact did it have on you?

Conclusion: 10 minutes

Is there anything else I should know about that you have not talked about yet in terms of the expression of leadership and / or dyslexia?

Invite the participant to a meeting that will aim to present and validate the integration of the information collected during the interviews.

Thank you

APPENDIX G

CODING LEXICON

Coding Lexicon

Green: matched

Black: I had it you didn't

Blue: You had it I didn't

New codes: emerged as part of coding process

Category	Name	Code	Definition
1. Leadership		L	Various elements of leadership explored in this research project
1.1 Understanding of leadership		LU	Elements of leadership identified by participants in the expression of their understanding the concept of leadership.
	Behavior	LUB	Leadership is a quality or behavior that can happen anywhere regardless of group or level.
	Collaboration	LUC	Leadership as a collaborative process, taking advice, and taking action.
	Engagement	LUE	Leadership requires the engagement of others with active listening and an open mind.
	Innovation & Initiative	LUI	Good leaders must be innovative, willing show initiative and take risks.
	Leading in the Public Service	LUPS	Leadership within the hierarchical structure in the Public Service.
	Respect	LUR	Respect for diversity, fairness and equality as a fundamental elements of leadership.
1.2 Leadership styles		LSTY	Different types of leadership styles identified by participants.
	Directive leadership	LSTYD	Directive leadership style is characterized by setting clear objectives and rules for your subordinates and ensuring that your expectations and directions

			are clearly defined and understood.
	Democratic/participative leadership	LSTYDP	Democratic/participative; make the final decisions but include team members in the decision making process.
	People-oriented leadership	LSTYPO	People-oriented /relations oriented leadership focused on organizing, supporting and developing people on their teams.
	Servant Leadership	LSTYS	Servant leadership when someone at any level leads simply by meeting the needs of others; leads by example; leads from behind.
	Transformational leadership	LSTYTF	Transformational leadership inspiring leaders who expect the best of everyone including themselves.
1.3 Strategies used to express leadership		LSTRA	Various strategies that participants said they used to express leadership.
	Collaboration and consultation	LSTRACC	Using collaboration and consultation to build a foundation of understanding that will facilitate a diversity of views in order to get better results at the end of the day by facilitating informed decision making.
	Communication	LSTRACOM	Open, transparent communication as a strategy to express leadership.
	Project management	LSTRAPM	Establishing realistic parameters and attainable deliverables.
	Analysis	LSTRAA	Establishing context through information gathering and analysis in order to situate yourself and then going from there.
	Mining expertise	LSTRAME	Mining expertise through a matrix management model to identify the right people for the

			job which results in more engagement.
	Change management	LSTRACM	Creative, proactive engagement in the face of change a leadership strategy fundamental to change management processes.
	Patience, perseverance and persistence	LSTRAPP	Patience, perseverance and persistence as a leadership expression strategies.
	Strategic thinking	LSTRAST	Strategic, big picture thinking.
	Self-disclosure	LSTRASD	Self-disclosure of dyslexia, be it direct or indirect, as a leadership expression strategy when developing a working relationship with team members.
1.4 Contextual examples of leadership expression		CE	Contextual examples of leadership styles or leadership expression.
	Bureaucratic leadership style example	CEXBL	Contextual example of bureaucratic leadership style.
	Big picture thinking example	CEXBP	Contextual example of big picture thinking.
	Taking initiative example	CEXIS	Contextual example of recognising a gap in information sharing and proactively demonstrating leadership by implementing an information sharing process.
	Poor leadership example	CEXPL	Contextual example of poor leadership behavior.
	Supportive leader example	CEXSS	Contextual example of supportive leadership, showing, teaching not directing or doing.
2.0 Perspectives of a managers with dyslexia of impact of dyslexia on career progression			
2.1 Obstacles		OD	Obstacles created by having dyslexia, including dyslexia

			itself that may have impeded individual optimal functioning and career progression.
	Attention to detail	OAD	Challenges with focus, concentration and fatigue, when attention to detail is required i.e. filling out forms, budgets, reading maps, navigating complex webpages that results in errors.
	Competitive process	OCP	The competitive process itself as an obstacle to career progression.
	Emotional Reactions	OER	Emotional reactions to impact of dyslexia on career progress: depression, sadness, anger, frustration, fear of judgement, anxiety, stress, shame and embarrassment.
	Knowledge of dyslexia, lack of	OKU	Lack of knowledge and understanding; acceptance of/or association with dyslexia as an obstacle to asking for accommodations that would facilitate career progression.
	Language training	OLT	Language training as an obstacle to career progress due to issues with processing phonemes, grammar & spelling error, slower learning acquisition speed, and slower reading speed.
	Accommodation, lack of	ONA	No accommodation from system no experience asking for accommodation.
	Non-disclosure of dyslexia	OND	Non-disclosure of disability as an obstacle to requesting accommodations.
	Belief accommodation is a weakness	ONDAW	No motivation to disclose dyslexia or ask for accommodations due to the belief that for self the need for accommodation is a weakness.
	Belief that dyslexia is not a disability	ONDND	No motivation to disclose dyslexia or ask for accommodations due to the

			perception that dyslexia is not a disability nor a disadvantage.
	No need for accommodation	ONDNN	No motivation to disclose dyslexia or ask for accommodations because they have already figured it out and feel it is not necessary.
	Never professionally assessed.	ONDPA	No motivation to disclose dyslexia or ask for accommodations because not professionally assessed.
	Reading and writing	ORW	Challenges of language (including math and music) in reading and writing resulting in fear of judgement from peers about ones intelligence and/or leadership ability.
	Stigma and discrimination	OSD	Stigma and discrimination from other employees and leadership.
	Self esteem	OSE	Low self-esteem and lack of self-confidence resulting from low academic success.
	Self-stigmatization	OSS	Self-stigmatization as an obstacle to asking for accommodation. Despite insight and knowledge, when it comes to accommodating others; judges self without mercy.
	Working memory	OWM	Challenges with working memory as an obstacle to career progression.
2.2 Dyslexia attribute strengths	Career enablers	DAE	Attributes of dyslexia that maybe considered as strengths or enablers of career progression.
		CEBPT	Thinking outside the box, ability to see things from a different perspective that others don't see
		CER	Resilience
3.0 Accommodation measures for career progression in leadership role		A	Various perspectives on accommodation and its relationship to career progression.

3.1 Self-accommodation strategies		SA	Strategies, tips and tricks participants used to self-accommodate for challenges resulting from having dyslexia.
	Adaptability	SAAE	Ability to adapt quickly to the changing demands of the work environment.
	Breaking things down	SABD	Breaking things down such as complex projects, tasks, long dense documents or emails into more manageable pieces.
	Oral communication	SAOC	Choosing oral over written communication when trying to get a message across.
	Proof reading	SAPR	Proof reading written information including documents, phone numbers and emails, multiple times.
	Prep time	SAPT	Building in extra prep time, not rushing, even when there is a time pressure and taking breaks to manage fatigue in order to reduce errors.
	Tele-working	SATW	Tele-working or working in a quiet space to limit noise and distractions, improve concentration and focus, particularly when long, complex documents need to read and analysed.
	Recruiting supportive colleagues	SASC	Recruiting supportive colleagues to check work, fill in gaps, and provide coaching and reminders.
	Working harder	SAWH	Working harder than peers in order to be able to perform at the same level.
	Working memory	SAWM	Self-accommodations to compensate for challenges with working memory.
3.2 Assistive technology			Access to assistive technology as a vital accommodation.
	Assistive technology ignorance	ATATI	Lack of awareness and knowledge of assistive technology available.

	Tech as career enabler	ATCE	Computers and assistive technology as a vital enablers of career progression and facilitators of self-confidence.
	Tech as career inhibitor	ATCI	Computers and assistive technology as an inhibitors of career progress.
3.3 Accommodation awareness			Different aspects of awareness and knowledge about available accommodations.
	Accommodation awareness low (dyslexic)	AAD	Accommodation awareness and knowledge low for a person who has dyslexia.
	Accommodation awareness high (leader)	AAL	Accommodation awareness and knowledge high as leader.
3.4 Disadvantages of accommodation		DAAW	Accommodation as career limiting when perceived as an unfair advantage or weakness by peers.
4.0 Contextual elements			
	Family history	CELFH	Family history of dyslexia.
	Job right fit	CELJRF	It is important to find a job that is the right fit.
	Time and disclosure	CELTD	Time as a facilitator of disclosure of dyslexia in the workplace.
	Advocacy	CEMA	Access to mentors and advocates as facilitators of career progression.
4.1 Cultural changes in the Public Service			Cultural changes in the Public Service that participants think did or could facilitate career progression for managers who have dyslexia by creating a more supportive environment.
	Change to competitive process	OCCP	Changing the existing competitive process in the Public Service (rather than accommodating) to make it more accessible to people with dyslexia.
	Redesign language training	OCLT	Re-design language training program in the Public Service to

			make it more accessible for people with dyslexia.
	Create supportive environments	OCSE	The creation of supportive environments that are inclusive, as a facilitator of career progression for managers who have dyslexia.

APPENDIX H

THEMES AND SUBTHEMES

Table 1.0 Factors Impacting Career Progression of Managers in the Public Service of Canada Who Have Dyslexia

Key Themes and Subthemes

Themes	Coding References:		Items Coded	
	Direct	Aggregated	Direct	Aggregated
1.0 Creative leadership expression				
1.1 Leading within the Public Service of Canada	16	16	5	5
Respect as a fundamental element of leadership	12	12	2	2
Engagement as a fundamental element of leadership	10	10	3	3
Collaboration as a fundamental element of leadership	9	9	5	5
1.2 Leadership styles				
Directive leadership	15	15	3	3
People oriented leadership	14	14	4	4
Servant leadership	8	8	3	3
1.3 Strategies used to express leadership				
Reliance on oral communication skills to offset reading and writing challenges	20	20	4	4
Collaboration & consultation	18	18	4	4
Mining Expertise	17	17	5	5
Self-disclosure as a leadership strategy for building relationships	11	11	4	4
2.0 Impact of dyslexia on career progression				
2.1 Obstacles				
Reading and writing	46	46	5	5
Stigma & Discrimination including self-discrimination	27	41	5	5
Struggles with attention to detail	22	22	5	5
Competitive process	18	18	5	5
Non-disclosure of dyslexia	10	36	5	5
Emotional Reactions	15	15	5	5
Lack of knowledge of dyslexia	33	33	4	4
Self-esteem	28	28	3	3
Language training	26	26	2	2
2.2 Career Enablers				

Big picture thinking	8	8	3	3
Resilience as a result of persistence	6	6	2	2
3.0 Accommodations role in career progression				
3.1 Self accommodations				
Self-accommodations used to offset issues with working memory	16	16	4	4
Recruitment of supportive colleagues as advocates and guardians	11	11	3	3
Working harder	10	10	3	3
3.2 Assistive technology				
Technology as a vital to career progression	19	19	4	4
3.3 Accommodation awareness				
Accommodation awareness low for a person with dyslexia	23	23	5	5
3.4 Disadvantages of Accommodation				
Asking for accommodation as career limiting	14	14	4	4
4.0 Supportive, Inclusive & Accessible Environments as vital to career progression				
Importance of advocacy for career progression	10	10	4	4
The need to create more supportive environments for people with hidden disabilities	16	16	4	4
Changes to competitive process	9	9	2	2
Redesign of language training	2	2	1	1

APPENDIX I

PROOF OF SUBMISSION OF FIRST AND SECOND ARTICLES TO PEER REVIEWED
JOURNALS

First Article

Expéditeur: Journal of Workplace Behavioral Health <onbehalf@manuscriptcentral.com>

Date: 22 avril 2018 à 11:39:28 UTC-4

Destinataire:

Objet: Journal of Workplace Behavioral Health Reviewer notification of decision on Manuscript JWBH-2018-0023

Répondre à: jwbheditors@gmail.com

22-Apr-2018

Dear Reviewers,

Thank you for reviewing the manuscript JWBH-2018-0023 entitled "How Managers who have Dyslexia, Express Their Leadership: An under Researched Area that can Serve Organizations in Their Leadership Development Practices" for Journal of Workplace Behavioral Health. We greatly appreciate the voluntary contribution that each reviewer gives to the Journal and hope that we may continue to seek your assistance with the refereeing process for Journal of Workplace Behavioral Health.

The decision that we arrived at for this article was: REJECT, basing the decision on your review and those of the other referees.

A copy of your comments to the author, along with those of any other referees, follows at the end of this letter for your information. Any files that referees uploaded for the attention of the author are attached as a PDF proof.

Yours sincerely,

Dr Darcy Siebert
Editor-in-Chief, Journal of Workplace Behavioral Health
jwbheditors@gmail.com

Referee comments to the author:

Second Article

Wed 2019-06-26 5:37 PM

Journal of Leadership and Organizational Studies onbehalf@manuscriptcentral.com
Journal of Leadership and Organizational Studies - Manuscript ID JLOS-A-19-274

To:

26-Jun-2019

Dear Dr. Lefebvre:

Your manuscript entitled "How Managers with Dyslexia Express Their Leadership: An Under Researched Area that can Serve Organizations in Reducing Stigma by Creating Supportive, Inclusive and Accessible Work Environments" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Leadership and Organizational Studies.

Your manuscript ID is JLOS-A-19-274.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to Manuscript Central at <https://mc.manuscriptcentral.com/jlos> and edit your user information as appropriate.

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Thank you for submitting your manuscript to the Journal of Leadership and Organizational Studies.

Sincerely,
Journal of Leadership and Organizational Studies Editorial Office