Mentoring for Persons Experiencing Disabilities: A Review of the Literature

Mentor Canada

Vision and Mission: To accelerate and scale world-class mentoring in Canada.

Mentor Canada was created over 5 years ago to advance and connect the mentoring field in Canada. Today, Mentor Canada is a national organization dedicated to convening, supporting, and building capacity, to strengthen the field and increase quality mentoring opportunities, especially for equity-deserving youth across the country. By working alongside governments, the private sector, schools, funders, employers and community organizations at local, provincial, and national levels, Mentor Canada is building and strengthening the field to accelerate and scale world-class mentoring in Canada.

The Canadian Association for Supported Employment (CASE) is a national association that facilitates opportunities for service providers and employers to increase employment inclusion in Canada for persons experiencing disability. CASE envisions a country in which all Canadians experiencing disability have equal opportunity to secure and sustain relevant, purposeful employment. Learn more about CASE at **supportedemployment.ca**.

MentorAbility Canada is a national supported employment initiative that facilitates unique, short- term mentoring opportunities between employers and people experiencing disability. By providing and celebrating successful mentoring experiences in communities across Canada, this initiative is part of a national effort to promote the employment of Canadians experiencing disability. Learn more about MentorAbility Canada at **supportedemployment.ca/mentorability**.

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Introduction

Mentor Canada and CASE's MentorAbility initiative undertook an environmental scan and review of the literature to better understand the benefits of mentoring for persons experiencing disabilities, who participate in mentoring activities and programs. It was found that persons experiencing disabilities are under-represented in post-secondary education and employment and face barriers to social inclusion. A recent study found that youth with physical disabilities want to pursue a career and have wide-ranging career aspirations, which were influenced by exposure to various professions (Lindsay, Cagliostro, Leck, & Stinson, 2021). Furthermore, hiring persons with disabilities had many benefits such as improved profitability (e.g., cost-effectiveness, employee retention and loyalty, positive organizational image), competitive advantage (e.g., customer satisfaction, innovation, productivity, safety), and inclusive work culture (Lindsay, Cagliostro, Albarico, et al., 2018). Lindsay et al. (2018) also found that employment has positive impacts on the quality of life, self-confidence, social networks, and sense of community of persons experiencing disability.

Mentoring is a promising intervention to reduce barriers to education and employment for persons experiencing disabilities. Mentors can provide guidance and encouragement and support skill development. Emerging evidence suggests that mentoring can be an effective intervention for persons experiencing disabilities with the potential to support educational attainment,

career outcomes, social skills, self-esteem, and self-determination. A multi-disciplinary analysis of the research on youth mentoring, career mentoring, and academic mentoring theorized that mentorship can yield a wide array of benefits (Eby, Allen, Evans, et al., 2008):

- Mentoring relationships may support the mentee's attachment (sense of belonging) to the context in which the relationship takes place such as an academic institution or an organization.

- Mentors can enhance mentees' self-confidence and self-esteem and challenge negative self-perceptions.

- Mentors can enhance interpersonal relationships.

- Mentors can present mentees with social, academic, and professional, opportunities which may broaden their horizons and motivate them to explore opportunities and seek out experiences they may not have previously considered.

- Mentors can help mentees set and attain goals.

- Mentors can support learning and skill development.

- Mentors can support networking for mentees.

Eby et al. (2008) also showed how mentoring relationships can serve different purposes based on the mentees' ages and/or stages of development and on the unique transitions that mentees face across their lifespan.

Additionally, mentoring benefits mentors and organizations by increasing awareness about what persons experiencing disability have to offer and by reducing stigma and discrimination (Lindsay, Hartman, & Fellin, 2016). A recent review of practices supporting workplace inclusion found that employer and leadership-level practices and policies such as inclusive leadership and training and mentoring are important facilitators of workplace inclusion which can trickle down from the top (Rezai, Lindsay, Ahmed, & Vijayakumar, 2022).

Mentoring is also a promising intervention to support the development of self-determination for youth experiencing disabilities. Self-determination supports goal-driven and autonomous behaviour. It involves skills and beliefs such as decision-making, goal-setting, and self-advocacy which empower people to make choices about their lives. However, research has shown that young people experiencing disabilities tend to have lower levels of self-determination and self- confidence as well as fewer opportunities to engage in activities that support its development. A 2022 systematic review of self-determination interventions for young people with disabilities conducted found that mentoring can support improved self-determination (Lindsay & Varahra, 2022).

To better understand how mentoring supports social inclusion for persons with disabilities across the lifespan, we conducted an environmental scan and literature review. The brief environmental scan included representative programs developed to support disability inclusion and/or employment readiness and career progression such as workplace inclusion mentoring programs, supported employment programs with a mentoring component, peer mentoring programs in higher education, mentoring to support adjustment to a disability diagnosis, and short-term mentoring initiatives. The literature review examined studies about the various types and formats of mentoring interventions, paying particular attention to the potential benefits of mentorship for mentees as well as for mentors and organizations. To better understand how mentorship supports the personal and professional success of persons experiencing disabilities across the lifespan, the review examined four bodies of literature: youth mentoring, career mentoring, speed mentoring, and experiential learning. Whenever possible, the review focused on studies that examined the mentoring experiences of persons experiencing disabilities.

However, studies were unevenly distributed across the four bodies of literature: there were comparatively more studies that focused on youth experiencing disabilities and fewer for adults. The review concludes by acknowledging the current gaps and limitations in the research on mentoring to support disability inclusion and by highlighting areas for future research.

Environmental Scan

Several mentoring programs and initiatives have been developed to support disability inclusion and/or employment readiness and career progression. Many programs and initiatives focus on youth, generally under the age of 25 or 30. These programs often tend to be longer in duration, lasting several months or more. There are also a variety of shorter programs or initiatives that use mentoring (either as a standalone initiative or as part of a larger program) to support career exploration, employment readiness, networking and increasing social capital.

The first step of the review included an environmental scan to identify representative programs for disability inclusion or employment readiness. The environmental scan focused on representativeness rather than exhaustiveness.

Workplace inclusion mentoring programs

Some programs or initiatives are specifically designed to support the inclusion of persons experiencing disabilities into the workforce.

- **MentorAbility** provides short-term mentoring opportunities for persons experiencing disabilities. The initiative is available to jobseekers' experiencing disabilities of all ages and supports career exploration through knowledge exchange with professionals working in their field

of interest. The benefits for mentees experiencing disabilities include opportunities to explore careers and industries of interest and exposure to careers they may not have previously considered, learning about what opportunities and workplaces best fit their skills and abilities, increase in confidence and communication skills in interaction with employers, increase in social capital and connections to advance their employment journey.

- [Partners for Youth with Disabilities](#) (USA) offers an online mentoring program for young adults experiencing disabilities. The program offers career readiness support. Mentees have access to a group of professional mentors who offer advice on the transition from education to employment. The program also includes monthly workshops to enhance mentees' career readiness skills.

- [Disability:IN Next Gen Leaders](#) (USA) matches college students and recent graduates experiencing disabilities with corporate mentors from leading brands across all industries. The mentor-mentee pairs meet bi-monthly for six months during which mentees benefit from personalized guidance on their professional development. The program helps students and graduates with disabilities strengthen their professional skills, learn how to use their disability as an asset in the private sector, and expand their network by gaining access to recruiters and leaders from varied industries and connecting with other students with disabilities.

- [National Federation of the Blind: Career Mentoring](#) (USA) connects blind or low-vision students with blind role models to help them navigate the transition from education to employment. The program offers modules and workshops led by blind role models to help mentees prepare for higher education or employment. The program aims to help blind mentees build self-confidence and self-worth, learn to cope, explore the college experience and career opportunities, develop job-seeking skills, and expand their network and social capital.

Supported employment programs that include mentoring

Other employment programs include mentorship as a component to support employment outcomes for persons with disabilities:

- [March of Dimes Canada: SkillingUp](#) offers mentorship opportunities as a component of its program to help people experiencing disabilities increase their technology-related skills and in-demand soft skills. The mentorship component of the program helps jobseekers and employees with a disability connect with industry professionals for learning and networking opportunities.

- **CNIB: Come to Work** aims to increase the employment participation of persons with vision loss or sight loss. The program connects jobseekers with sight loss with employers, offers job readiness workshops and technology training, and provides internships or job placements. In addition, the program includes mentorship opportunities to support mentees' professional development by learning about workplace etiquette and teamwork and developing communication skills such as presentation, listening, and giving and receiving feedback.

Peer mentoring programs in higher education

Peer mentoring programs are a popular strategy to ease the transition to higher education for students experiencing disabilities.

- **Accessibility Services, University of Waterloo: Peer Mentorship Transition Program** supports the transition to university life for first-year students experiencing disabilities and helps refer and connect them to additional services, resources and supports. Mentors and mentees meet online once a week for the duration of the academic year.

- **Accessibility Services, University of Toronto: Access US Peer Mentorship Program** fosters the creation of a supportive community by pairing more experienced students registered with Accessibility Services with students who are new to Accessibility Services. The program helps mentees expand their network and social capital by building personal and professional relationships, learn how to navigate campus resources and services, set goals for their growth and learning, and develop self-advocacy skills. The program also offers leadership and professional development opportunities.

Mentoring to support adjustment to a disability

Some mentoring programs focus on supporting people adjusting to a disability.

- **Canadian Hard of Hearing Association: Mentoring Program** helps individuals acquire skills to manage their hearing loss in everyday life to support their well-being and productivity. The online peer-mentoring program pairs mentors and mentees with hearing loss to facilitate peer support, help the mentee develop coping skills and leadership and communication skills, and support goal setting for the mentee.

Short-term mentoring initiatives

Additionally, although not specifically designed to support the inclusion of persons experiencing disabilities in the workforce, some short-term or punctual mentoring programs or initiatives support employment exploration and readiness for various demographic groups.

- **Mentor Canada: Power of Mentoring** initiative offers virtual and in-person networking and skill-building events designed to support youth ages 18-24. While not a program, this initiative offers mentoring opportunities to connect youth with mentors and prospective employers to help them learn more about the Canadian labour market. Youth gain an understanding of the practical job skills required to meet labour market demands, develop an awareness of the future of work, and learn how to access opportunities aligned with their academic, career and life goals. Each Power of Mentoring event includes facilitated career mentoring conversations in small and large groups plus skill-building activities focused on networking, communications, goal setting, and personal branding.

- **Academos** is an online mentoring platform to support career exploration for youth aged 14 to 30. Young people can reach out to mentors who can help them explore career options, refine their career choices, seek advice to define their professional goals and identify the educational and professional pathways to achieve those goals. Young adults over the age of 18 sometimes also have the opportunity to participate in a one-day internship or job shadowing experience in some mentors' workplaces.

- **ACCESS Employment: Speed Mentoring** events allow participants to expand their professional networks, learn how to leverage their experiences and skills, seek and receive industry-specific advice and feedback about finding employment and career advancement, and receive job opportunity referrals.

- **Diversity by Doing: Speed Mentoring** (USA) events are aimed at early to mid-career women and underrepresented groups in the health sector. The events offer short presentations about career development and personal growth and opportunities for mentees to meet with senior industry executives. The events do not provide formal mentoring relationships, but they encourage participants to seek out mentors and the connections created are generally meaningful and are often sustained after the event.

As this environmental scan shows, the format, duration, and dosage of mentoring programs and initiatives supporting educational or professional outcomes for persons experiencing disabilities vary. Some programs, especially programs for youth, are longer in duration while other initiatives offer short-

term experiences. Despite these differences, the reported benefits of these programs and initiatives often fall into similar categories:

- Skill development: hard skills (sometimes), job-seeking and transition-related skills, soft skills (e.g., communication, leadership, self-advocacy).

- Career exploration: opportunities to learn about various careers and industries from people with direct experience (e.g., professionals, peers with disabilities).

- Networking and social capital: opportunities to develop useful and meaningful connections to support education and employment pathways.

However, the extent to which these various mentoring programs or initiatives are successful in consistently achieving their stated benefits and the specific degree (effect size) of these benefits is often unclear. From the environmental scan, few programs or initiatives integrating mentorship to support the inclusion of persons experiencing disabilities seem to have rigorously evaluated their effect on their targeted outcomes. The resources required to rigorously evaluate or study a program (time, expertise, money) are often significant obstacles. Nevertheless, the literature on mentoring, especially mentoring for disability inclusion, offers some insights into the potential effectiveness of such programs. Finally, despite the growing popularity of mentoring as a strategy to support persons experiencing disabilities, many employment services have not yet integrated mentorship opportunities into the services they offer jobseekers experiencing disabilities.

Literature review

To examine the effectiveness of mentoring as a tool to bolster social inclusion for persons experiencing disabilities, we conducted a review of the literature on youth mentoring, career mentoring, speed mentoring, and experiential learning. The review also considered the various types and formats of mentoring interventions, including virtual mentoring, peer mentoring, and speed mentoring. Whenever possible, we prioritized studies that focused on persons experiencing disabilities. However, we occasionally expanded the literature review to include studies that did not specifically focus on persons experiencing disabilities when the evidence specific to persons experiencing disabilities was too limited. (For an overview of the search strategy, see Appendix B)

In addition to academic literature, we included select documents from the grey literature such as evidence reviews and other relevant research studies.
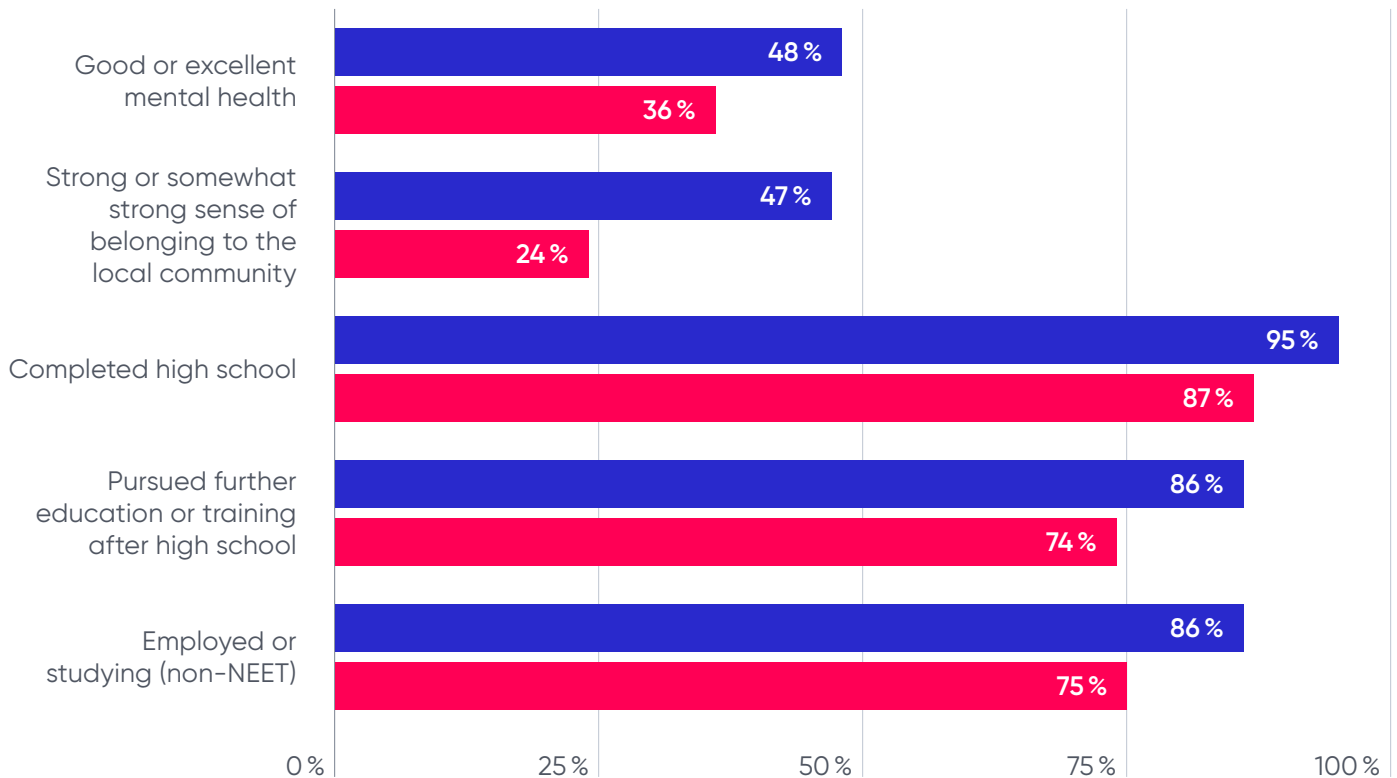
Evidence reviews and grey literature

The State of Mentoring in Canada

Findings from Mentor Canada's State of Mentoring research which surveyed over 1100 young adults experiencing functional disabilities, including over 700 with diagnosed disabilities, found that young adults experiencing disabilities who had access to mentoring during their childhood or adolescence reported positive outcomes related to their mental health, belonging, education, and employment in greater proportions than their peers who did not have access to mentorship (Mentor Canada, 2022).

Percentage of youth with disabilities reporting positive outcomes based on access to mentorship

- ● Mentored youth with diagnosed disabilities
- ● Unmentored youth with diagnosed disabilities

Outcome	Mentored	Unmentored
Good or excellent mental health	48 %	36 %
Strong or somewhat strong sense of belonging to the local community	47 %	24 %
Completed high school	95 %	87 %
Pursued further education or training after high school	86 %	74 %
Employed or studying (non-NEET)	86 %	75 %

When analyzing the outcomes of all survey respondents (including respondents who did not experience a disability and those who did), the State of Mentoring study determined that respondents who had access to mentoring during childhood or adolescence were statistically more likely to report positive outcomes as young adults (Church-Duplessis & Hackett, 2021):

- Respondents who had access to mentorship were 53% more likely to report good or excellent mental health compared to respondents who did not have access to mentors.

- Respondents who had access to mentorship were over twice as likely to report a strong or somewhat strong sense of belonging to their local community.

- Respondents who had access to mentorship were over twice as likely to have completed high school.

- Respondents who had access to mentorship were 95% more likely to have pursued further education or training after high school.

- Respondents who had access to mentorship were 59% more likely to be employed or studying compared to respondents who did not have access to mentors.

Mentors to youth experiencing disabilities provided emotional support, helped youth manage interpersonal relationships, helped them acquire skills, and supported their transition to adulthood. Importantly, over two-thirds of survey respondents with a disability who had a mentor during their adolescence reported that their most meaningful mentor had a significant influence on their confidence in their abilities, in their sense of pride and self-esteem, and in their hope for the future (Mentor Canada, 2022).

Although the State of Mentoring research does not allow to draw a causal link between the presence of a mentor and positive outcomes, it adds to a growing body of literature that suggests that supportive relationships with adults are critical for young people's positive development (Bethell, Jones, Gombojav, et al., 2019; Cavell, Spencer, & McQuillin, 2021). Evidence reviews conducted by the National Mentoring Resource Center (USA) further shed light on the effectiveness and promise of mentoring for enhancing career interests and exploration for youth experiencing disabilities.

Mentoring for Enhancing Career Interests and Exploration

Although the review of the research on the role of mentoring on career interests and exploration focused on programs that targeted youth under the age

of 18 and did not specifically focus on youth with disabilities, its conclusions point to the overall relevance of mentoring as a promising intervention to support the employment and career journeys of people of all ages and abilities (Stelter, Melton, & Stewart, n.d.). The review of 52 studies showed that mentoring programs to support career interests and exploration are varied in format (e.g., group mentoring, virtual mentoring, etc.) and target different youth populations. The studies reviewed demonstrate that such programs are a promising intervention to promote outcomes related to career trajectories such as orientation toward distinct careers, development of career interests, and improvement of self-efficacy within specific fields of interest. The review highlighted how mentoring is a flexible approach that can adapt to the stage of development of the mentees. For example, programs for middle schoolers helped them build skills and gain knowledge about career interests and exploration whereas programs for youth who were closer to entering the labour market provided more specific support about career choices. The review highlighted the key role that mentors can play for youth who may lack role models or encouragement. In such cases, mentors can help mentees expand their imagined future and provide career-specific support and encouragement. However, the review cautioned that mentoring alone may be insufficient for promoting employment and career outcomes for youth who face such barriers and they could benefit from additional academic and career-related supports. The evidence review also showed that mentoring can support career aspirations by improving self-efficacy and, perhaps even more importantly, by reducing social barriers and strengthening social connections.

Mentoring for Youth Experiencing Disabilities

A recent review of 40 studies on mentoring for youth (aged 25 and younger) experiencing disabilities (physical, cognitive, learning, or developmental) found that mentoring programs can provide benefits related to education and career development, employment, quality of life, transition, and life skills (Lindsay & Munson, 2018). The evidence review found that some programs resulted in academic and career development benefits such as efficacy to make career-related decisions, improvement in knowledge about career options, or improvement in educational planning. Other programs resulted in employment-related benefits such as improved knowledge of employment services and supports, improved knowledge about employment preparedness (skills to apply for a job), increased job-seeking self-efficacy, and improvements in employability. Some programs also resulted in improvements in areas related to psychosocial health and quality of life such as perseverance, self-determination, self-esteem, social-emotional

support, social skills, self-advocacy, self-confidence, sense of community, and independence.

As the evidence review revealed, there is no single theory about how mentoring relationships impact youth experiencing disabilities. However, the studies reviewed provided some preliminary insights into the processes that may lead to positive program outcomes for youth experiencing disabilities. The review identified four key processes that possibly contribute to positive outcomes: social processes, learning processes, self-determination, and emotional support.

- Social processes: mentoring programs can improve social connections, reduce feelings of loneliness, and increase feelings of social acceptance. Improved relationships and social connectedness could, in turn, support positive outcomes related to education and employment.

- Learning processes: mentoring programs can provide youth with important information and learning. It may provide a safe space in which some youth experiencing disabilities can feel comfortable asking questions.

- Self-determination: mentoring programs and relationships can foster empowerment and self-determination which could support the achievement of positive outcomes. However, research on self-determination as a mediator to support positive outcomes is very limited.

- Emotional support: many mentoring relationships provide mentees with emotional support which could in turn help youth overcome common barriers to success.

The recently released *Inclusive Mentoring for Youth with Disabilities* supplement to the Elements of Effective Practice for Mentoring™ further explored theories about how mentoring relationships achieve their impact on youth with disabilities (Humphrey, Lome, Thomas, & Garringer, 2023). One common theory is self-determination theory which suggests that mentoring relationships can positively impact the three basic psychological needs (autonomy, competence, and relatedness) of people with disabilities and help them feel in charge of their own life. A second theory that can help explain how mentoring relationships can be impactful for youth experiencing disabilities is that of credible messengers. This theory suggests that bonding with and accepting the advice of mentors can be easier if that mentor has had similar experiences and faced similar challenges. This shared experience can foster mentors' empathy for the mentees. Shared experience also helps mentors ground their advice in lived experiences with proven results which, in turn, increases the validity of that advice in the eyes of the mentees and, ultimately, fosters trust.

Although these evidence reviews focus on youth, they offer interesting insights into the range of possible benefits that mentoring programs can provide mentees and suggest that mentoring is a flexible intervention that can be tailored to meet the needs of very diverse target populations at various developmental stages. They also shed light on emerging theories about how exactly mentoring relationships work for youth experiencing disabilities, and about the mechanisms through which they can achieve an impact. However, these reviews also make clear that the research on the effectiveness of specific mentoring interventions is still quite limited. Mentoring programs specifically designed for youth experiencing disabilities are a relatively recent innovation and research is limited. Studies have shown that mentoring is a promising approach but, at this point, research does not allow us to conclude what types of mentoring work best for which target population. One important limitation of these evidence reviews is that the studies focused mainly on medium- to long-term mentoring programs and did not provide significant evidence about the effectiveness of short-term initiatives.

Academic literature

Natural mentors

Supportive relationships, including support from family and social networks, help youth with disabilities develop their occupational capacity (Lindsay, Cagliostro, Leck, & Stinson, 2021). Two qualitative studies examining the factors that contributed to the successful transition to employment for persons experiencing disability found that the presence of supportive relationships, including natural mentors, across the lifespan played a critical role. Natural mentors such as family members, teachers, and coworkers among others can have a significant impact by providing encouragement and by increasing the self-confidence and self-esteem of persons experiencing disabilities.

Foster and MacLeod's (2004) study of the role of mentoring in the career development of deaf graduates of the Rochester Institute of Technology found that the natural mentoring relationships they developed organically with supportive peers and adults in their surroundings were a determining element in their career success. Mentors' offer of emotional support was especially significant and helped instill self-confidence and self-esteem. Mentors provided guidance and encouragement. They acted as role models, and they helped mentees develop their skills. Importantly, the study emphasized the fact that mentoring relationships can occur at any age. Finally, although

longer relationships tended to have a stronger impact, the study determined that shorter term relationships or interactions could also be impactful.

Olney et al. (2014) studied the factors that facilitated the transition to employment and maintaining employment for 22 persons experiencing disabilities who were receiving disability income support. They found that the presence of role models, family encouragement, mentors, and support from clinicians played an important role in helping persons with disabilities transition to self-sustaining employment. The study found that mentors such as college professors, service providers, and employed persons experiencing disabilities often had a significant influence. Mentors provided support, encouragement, and role modelling.

Importantly, mentors had high expectations for mentees experiencing disabilities. Mentors helped mentees prepare for, find, and maintain employment. Mentors experiencing disabilities were particularly influential. These mentors influenced, motivated, and were role models for persons experiencing disabilities which drove them to be self-sufficient. These mentoring relationships had various formats such as exposure to other persons experiencing disabilities, support groups, or close individual relationships and friendships.

Supportive relationships with natural mentors can play an important role in facilitating the transition to employment for persons experiencing disabilities. Many formal mentoring programs have been developed in an attempt to replicate or supplement the benefits provided by natural mentoring relationships.

Youth mentoring

A 2016 systematic review of mentoring programs to support the transition to post-secondary education and employment for youth experiencing a disability aged 30 or younger found that mentoring is a promising intervention (Lindsay, Hartman, & Fellin, 2016). Lindsay et al. (2016) found that the programs targeted a wide array of outcomes including self-determination and self-efficacy, psychological well-being and quality of life, employment-related outcomes and skills, knowledge related to the transition to employment, and social skills and interpersonal relationships. Seven of the 22 studies reviewed reported medium to large effects in the areas of self-determination, empowerment, and self-efficacy. Studies also reported significant improvements in self-confidence or self-advocacy, decision-making, problem-solving, self- regulation, social skills, and perceived independence although they reported no effect size for these outcomes. Four studies reported small to medium size effects related

to improvements in knowledge of the transition to employment, educational planning, preparedness for post- secondary education and employment, transition-related goals and planning, or perceived career options.

There was a large degree of variation in the interventions (Lindsay et al., 2016). These variations included the mentors delivering the intervention (mentors experiencing a disability, peers without a disability, researchers, or parent leaders, etc.), the delivery format (group- based, one-on-one, a combination of both, school-based, community-based, work-based, virtual), length, duration (2 days to 2 years), and the number of sessions (1 to 130 sessions). Some programs included standardized interventions, others were individualized, and others a mix of both. Mentors in these programs included workplace mentors and adults or peers experiencing similar disabilities. These mentors had diverse roles and provided a mix of emotional support, tangible support, and informational support. Mentors acted as role models and provided emotional support such as motivation and encouragement. They offered advice, helped youth experiencing disabilities navigate services and learn more about employment pathways and professional experiences such as internships or volunteering opportunities. Consistent with the emerging literature on the effectiveness of peer-mentorship interventions, the studies reviewed suggest that peers were able to offer emotional support as well as tangible and informational support.

When examining the characteristics of programs reporting significant outcomes, Lindsay et al. (2016) noted that these programs had a duration of more than six months, that they were structured, as opposed to individualized, and often had a curriculum and program staff who provided training and oversight for the mentors. Furthermore, the authors found that effective programs were tailored to meet their specific objectives such as skill-building. These programs also took the context of the mentees into account (e.g., school, community, family) and placed emphasis on the mentoring relationship as an important support for the transition to post- secondary education or employment. Effective programs were often delivered in a group-based or mixed format. Nevertheless, Lindsay et al. cautioned that more research is necessary to determine what types of programs work for whom and for what outcomes.

Intergenerational mentoring

Mentoring relationships can have a positive impact on the occupational well-being of persons experiencing disabilities. A qualitative study of a 6-month intergenerational mentoring program for 18 unemployed young men aged 17 to 24 with mild to moderate intellectual disability paired with retired men in

Australia found that the intervention supported the participants' occupational well-being (Milbourn, Mahoney, Trimboli, et al., 2020). The intervention was delivered in community spaces in which members can make social connections and work on projects (e.g., woodwork or metalwork) at their own pace in the company of other men. According to interviews with mentees and their parents, the mentoring program had an impact on the five dimensions of occupational well-being: competence, autonomy, contentment, belonging, and identity. Mentees reported feelings of effectiveness, a willingness to take on challenges as well as the development of hard skills and soft skills such as social skills all of which supported their competence. Mentees' autonomy was supported with opportunities to make decisions and the creation of a supportive context in which they felt able to make mistakes since their mentors could provide them with guidance. The satisfaction mentees derived from their accomplishments and the enjoyment they took from listening to their mentors supported their contentment. Fun played a critical role in supporting mentees' engagement and fostering their sense of purpose. The mentoring experience also helped mentees find out who they are (identity) and feel valued for who they are. Finally, the mentees' parents reported that participating in and belonging to a group that did not focus on therapy had a great influence on the mentees' well-being. In addition to supporting occupational well-being, mentees gained hard skills (e.g., using tools) and soft skills (e.g., social skills, work ethic) which can support their employment and societal participation. A companion study also found that mentoring improved the mental health of the retired men who mentored the young men experiencing intellectual disabilities (Mahoney, Wilson, Buchanan, et al, 2018).

A US study of a mentoring program for college students with vision loss who were paired with legally blind mentors showed that mentees valued several aspects of the program (Antonelli, O'Mally, & Steverson, 2018). Most highly rated activities included managing blindness in the job-search process and in the work environment such as disclosure, accommodation planning, and assistive technology skills. Mentees also valued the development of social skills. Mentees benefited from general employment preparedness activities with mentors such as enhancing search skills (searching for opportunities, preparing résumés, applying for a position) as well as professional development. Mentors supported career exploration and networking. Based on the program evaluation and participant feedback, Antonelli, O'Mally, and Steverson recommended extending mentoring beyond the transition itself to also support early career establishment.

Mentees reported that shared vision loss followed by close professional interests were the most important criteria in developing a mentoring relationship with geographical proximity coming last. In fact, geographic

proximity did not influence the frequency of communications, activities, or overall program satisfaction. Mentors with vision loss reported benefiting from the experience. Mentors valued the ability to contribute to the growth and success of the mentees and the opportunity to develop a relationship with another person with sight loss in their professional field (Antonelli et al., 2018).

Peer mentoring

Peer mentoring refers to a relationship in which mentees and mentors share similarities such as age or lived experiences. Although near peers, mentors are usually slightly more experienced than mentees. Peers are theorized to be credible messengers which can increase the trust between mentors and mentees and the overall quality and effectiveness of the mentoring relationship. Peer mentoring is a popular approach for mentoring programs for persons experiencing disabilities. In some but not all cases, the peer mentors also experience disabilities.

A recent meta-analysis found that cross-age peers may be particularly effective mentors for youth, sometimes even more so than intergenerational mentors (Burton, Raposa, Poon, et al., 2021). The meta-analysis found that cross-age peer-mentoring programs had significant impacts on five outcome domains: school (academic functioning and school engagement), social (social skills and social support), health (substance use and physical health), cognitive (self-cognition), and psychological outcomes (externalizing symptoms and mental health). These findings led the authors to conclude that cross-age peer mentoring programs may be a feasible and efficient approach that yields benefits for both the mentors and the mentees.

Peer mentoring has been put forward as a potentially effective social learning intervention that guidance counsellors can use to enhance vocational well-being for youth experiencing disability (Chen & Chan, 2014). This approach has the advantage of being non-stigmatizing and cost- effective. Through role modelling, peer mentors can challenge negative conceptions of the self and help youth experiencing a disability develop a more positive identity. Chen and Chan (2014) argued that a peer mentoring program facilitated by a guidance counsellor can also increase career awareness as well as career planning and exploration for youth experiencing learning disabilities.

Peer mentoring programs are common intervention strategies to support the transition and adaptation to higher education. One of the advantages of peer mentoring is that it can have significant benefits for mentors. A study of a peer mentoring program between more experienced undergraduate students and new students experiencing disabilities found that mentors, who did not experience a disability, received many benefits from the experience but also

encountered a number of challenges (Hillier, Goldstein, Tornatore, et al., 2018). Benefits to mentors included personal growth and skill development such as interpersonal skills (patience, flexibility, compassion), communication skills, and help-seeking skills. Mentors gained greater knowledge about disabilities which helped normalize disabilities, changed perceptions and increased awareness of stereotypes. However, mentors faced challenges such as communication challenges, challenges building a rapport, getting mentees to open up or boundary issues. Mentors were sometimes concerned about their self-efficacy and competency and worried about providing the wrong advice. Given the challenges reported by the mentors, Hillier et al. (2018) argued that training and ongoing support from program staff were critical program components.

A scoping review of the interaction modalities and frequencies in 13 studies on peer mentoring programs for adults experiencing disabilities revealed a great degree of variation in the modalities used and frequency of interactions (Shaw, Lawrason, Todd, & Martin Ginis, 2021). Mentors and mentees connected mostly often in person or by telephone but also relied on email, text, and video chat to stay in touch. The reviewers concluded that internet-mediated communication (email, video call) might be underutilized for persons experiencing disabilities but noted that these modalities might be less suitable for older adults. The frequency of interactions also varied widely, ranging from 3 to 77 but no study tested if the frequency had a moderating effect on the outcomes. Shaw et al. (2021) recommended that programs consider providing training on effective communication oral skills for programs relying on the telephone or written communication skills and using new information technology for programs in which mentors and mentees are expected to connect via the Internet. An important finding of the scoping review is that few programs allowed participants to have autonomy over their interaction modality and over the frequency of their interactions. Furthermore, the studies reviewed rarely involved the mentors and mentees in the design of the interventions studied and thus do not provide any information on their needs and preferences.

Virtual mentoring

Research has shown that in-person mentoring for youth experiencing disabilities can support the transition to higher education and employment, increase social competence and self- esteem, and support the development of independent living skills (Lindsay, Kolne, & Cagliostro, 2018). However, some youth experiencing disabilities may not be able to fully participate in face-to-face mentoring. E-mentoring is a potential solution to make mentoring opportunities more easily accessible for youth experiencing disabilities.

In a systematic review of 25 studies, Lindsay, Kolne, and Cagliostro (2018) found that e- mentoring may be an effective approach to support the development and inclusion of youth experiencing disabilities. The studies reviewed included 14 studies conducted in the United States, 6 in Canada, and 5 in other countries. A total of 897 participants between the ages of 12 to 26 experiencing various physical or developmental disabilities were included in the studies. Of the 25 studies, 10 provided details about the dosage of the interventions which varied from about 20 minutes to 2 hours per week and from 4 to 24 weeks. Delivery formats included interactive websites, video calls, emails, and mobile apps.

Lindsay et al. (2018) found that over 80 percent of the 11 studies which tracked participant outcomes reported significant improvements for at least one of the following outcomes: career decision-making, self-determination, self-advocacy, self-confidence, self-management, social skills, attitudes toward disability, and coping with daily life. Lindsay et al. found that e-mentoring through interactive websites had similar outcomes for self-efficacy and self-management and quality of life and coping with daily life compared to in-person mentoring. Furthermore, the studies reviewed reported that web-based mentoring was fun, feasible, and provided a safe environment.

A total of 13 studies included one-to-one mentoring, 6 group mentoring, and 6 a combination of both. There were no discernable patterns about differences in benefits for one-to-one version group mentoring. Additionally, the systematic review showed that various types of mentors (i.e., mentors with a similar disability, peer mentors without a disability, adult mentors without a disability, and clinician mentors) could support positive effects for mentees. However, due to high variations in the outcomes reported in each study, the reviewers were not able to compare the effectiveness of these types of mentors. Lindsay et al. (2018) concluded that e-mentoring could be a viable option to offer social support and help youth experiencing disabilities address the barriers to accessing in-person mentoring.

A study of a virtual mentoring program for transition-age youth experiencing intellectual or developmental disabilities relying on peer mentors experiencing disabilities found that the intervention was suitable and acceptable for participants (Kramer, Ryan, Moore, & Schwartz, 2017). The intervention helped mentees develop problem-solving and advocacy skills related to identifying and addressing barriers that impede their participation in school, work, or community. However, the study emphasized the need for appropriate support for peer mentors. Indeed, peer mentors more often met the program objectives when they used supports such as direct support from supervisors or mentoring scripts.

There are a few examples of virtual mentoring interventions in Canada to support employment preparedness for young people experiencing disabilities. A qualitative study of the forum exchanges in an employment-focused virtual peer-mentoring program for youth experiencing physical disabilities found this is a promising approach which can offer youth unique forms of support as their prepare for employment (Cassiani, Stinson, & Lindsay, 2020). Solution-focused support included advice drawn from personal experiences and strategies to navigate anticipated employment-related challenges. These included discussions about strategies for employment skill development and employment preparedness. The forum participants offered advice and solutions related to transportation, self-advocacy skills, disclosing a disability and requesting accommodation, dealing with discrimination, networking, and job-seeking skills. The study's authors concluded that peer mentoring may have value for youth experiencing disabilities in addition to clinical regimens since it can provide a space for youth to engage in more discussions about employment preparedness and to receive support from a peer mentor with lived experience and expertise about employment with experiencing disability.

The *Empowering youth towards employment* intervention used virtual mentoring to support employment preparedness for young people experiencing disabilities. Researchers conducted randomized controlled trials to assess the impact of peer mentoring interventions. The *Empowering youth towards employment* intervention relied on trained peer mentors with a disability to lead discussion forums and offer peer support and resources through a series of 12 modules for employment preparation. One intervention was delivered over the course of 4 weeks and included 3 modules per week and the other was delivered over the course of 12 weeks with one module each week.

Participants in the 4-week intervention reported that the program was feasible and acceptable but did not report significant improvements in social support, career maturity, or self- determination compared to the control group (Lindsay, Cagliostro, Stinson, & Leck, 2019).

Participants in the 12-week program also reported that the program was feasible and acceptable, but the level of engagement was lower than expected and declined over time suggesting that a more condensed version may be more suited to maintain the consistent contact that supports the creation of successful mentoring relationships. Despite this lower-than-expected engagement, participants in the e-mentoring program reported significant improvements related to self-determination compared to the control group (Lindsay, Cagliostro, Leck, & Stinson, 2019).

When comparing the role of mentors in the 4- and 12-week formats, the researchers found that there were no noticeable differences in terms of the tangible support provided by mentors (Lindsay & Cagliostro, 2020). However, mentors in the 12-week intervention provided more emotional and informational support such as advice, empathy, and encouragement. Mentors in the 4-week intervention provided less social support and there were fewer instances of developing a rapport. Mentors also found that the 4-week intervention felt rushed whereas those in the 12-week intervention thought it was too long and that the level of interaction between participants was lacking. Further research is necessary to determine the optimal dosage of the intervention.

Several studies have highlighted how communication challenges can have a significant impact on the success of mentoring relationships (Shaw, Lawrason, Todd, & Martin Ginis, 2021; Hillier, Goldstein, Tornatore, Byrne, et al., 2018). Communication challenges can be especially acute for virtual mentoring programs. A review of unsuccessful e-mentoring relationships for youth experiencing disabilities found that poor communication plays a critical role in unsuccessful matches (Shpigelman, & Gill, 2013). Infrequent communications and delayed responses may hamper the success of virtual mentoring relationships. The lack of timely responses, for example, may lead to anxiety about the reason for the delay. Communication style and lack of personal engagement can also influence the lack of success of virtual mentoring relationships. Specifically formal and distant tones, as opposed to a conversational style, were common among unsuccessful mentor-mentee pairs. Unsuccessful mentors also ignored mentees' questions about disability or discussed disability in terse or distant ways. Unsuccessful pairs also perceived the relationship as unidirectional, as opposed to reciprocal, and did not focus on mutuality. Based on these findings, the authors recommend that strategies that can foster the development of successful relationships include sustaining a frequent communication pace, encouraging mutuality, and responsive and emphatic communication.

Academic mentoring

Mentoring, especially peer-mentoring, has grown in popularity as a strategy to facilitate the transition of students experiencing disabilities to higher education. Research on mentoring students experiencing disability in higher education is still limited but a few studies have reported that it can lead to positive outcomes such as an easier transition to higher education, lower drop-out rates, improved academic performance, improved career-related skills, social connectedness, and self-determination (Hillier, Goldstein, Tornatore, et al., 2018).

A rapid evidence assessment of mentoring interventions for students experiencing disabilities in higher education found that mentoring programs to support the transition to university of students with disabilities yielded several benefits for mentees and peer mentors (Cardinot & Flynn, 2022). The peer mentoring relationships helped mentees develop a sense of belonging. Other benefits for mentees include exposure to social activities which supported the development of communication skills, self-esteem, and self-efficacy. Mentors shared knowledge about how things worked in the university context, helped mentees meet people, and helped mentees enhance their time management and organization skills. Supportive mentoring relationships helped reduce stress in adjusting to the university context, increased mentees' knowledge about how to succeed and how to access support and university services and supported social engagement with peers. Benefits to mentors included building new relationships, normalizing the challenges of academic life, enhancing communication and social skills, and increased commitment to the university.

Summary: Benefits of mentoring for youth experiencing disabilities

To summarize, when structured and implemented effectively, mentoring programs and relationships can result in several positive outcomes for youth experiencing disabilities including:

- Increased self-determination, empowerment, independence, self-confidence, self- advocacy, self-efficacy, decision-making and problem-solving skills (Milbourn et al., 2020; Lindsay, Cagliostro, Leck, & Stinson, 2019; Kramer et al. 2017; Powers, Geenen, Powers, et al., 2012; Bell, 2012; Shem, Medel, Wright, et al., 2011; Kim-Rupnow & Burgstahler, 2004; Powers, Sowers, & Stevens, 1995; Abery, Rudrud, Ardnt, et al., 1995; Maheady, Sacca, & Harper, 1988).

- Increased education and career planning and preparedness (Hillier et al., 2018; Antonelli et al., 2018; Powers et al., 2012; Kim-Rupnow & Burgstahler, 2004; Powers, Turner, Westwood, et al., 2001; Maheady et al., 1988).

- Improved social skills (Milbourn et al., 2020; Kim-Rupnow & Burgstahler, 2004; Powers et al., 2001).

- Positive sense of identity (Chen & Chan, 2014; Daughtry, Gibson, & Abels, 2009).

- Increased community participation (Kramer et al. 2017; Maheady et al., 1988).

Career mentoring

Mentoring is an increasingly popular and effective strategy to attract, develop, and retain talent for many organizations. Its benefits extend to both mentors and mentees, and, by extension, to organizations. Mentors can provide career support (e.g., discuss career options, sponsor and coach, provide challenging work assignments), psychosocial support (e.g., acceptance, counselling, friendship), and role modelling. Mentoring can influence career progression, but also enhance a person's sense of professional identity, feelings of competence, and career satisfaction (Kram, 1985).

The literature on career mentoring does not include many studies that specifically examined the benefits for persons experiencing disabilities. Instead, most studies focus on all employees with a limited number focusing on mentoring for women and for racial and ethnocultural minorities.

Benefits for mentees

Ramaswami and Dreher's (2007) theoretical modeling of the connections between the functions and processes of mentoring and its outcomes posited that career mentoring could enhance career and salary attainment as well as career and life satisfaction for mentees through improved job performance, increased mobility, sponsorship by the mentor, and career planning.

In a review of 43 studies examining the career benefits of mentoring, Allen, Eby, et al. (2004) found that mentoring was associated with improved career success indicators such as compensation and promotion and with career satisfaction, commitment, and expectations for advancement. The meta-analysis found that mentoring was associated with better career success indicators, but that career mentoring had a stronger influence on career success than psychosocial mentoring. For example, mentors can support career success by sponsoring mentees, increasing their visibility, providing networking opportunities, and coaching. Psychosocial and career mentoring had a strong correlation to job satisfaction. Career mentoring may enhance feelings of career satisfaction by providing mentees with instrumental and informational support which can help them feel more confident and enhance their career- related self-efficacy. Psychosocial mentoring can increase feelings of acceptance, validation, and friendship which are related to job satisfaction. Overall, results from the meta-analysis revealed that some of the most consistent benefits of mentoring may be mentees' positive feelings about their careers.

In another meta-analysis, Underhill (2006) found that mentoring was associated with increased job satisfaction and increased perceived promotion

or career advancement opportunities. The meta-analysis also found that informal mentoring relationships may be more effective than formal mentoring programs. To increase the effectiveness of formal mentoring relationships, Underhill suggested that they attempt to replicate some of the attributes of successful informal mentoring relationships such as creating mentoring relationships based on mentors and mentees' preferences, shared interests, and other similarities giving them a strong voice and giving them a strong voice and choice in the process.

A study of a standardized mentoring program offered in nine Korean companies found that mentoring, particularly career support provided through mentoring, enhanced mentees' affective well-being (positive feelings about the job) and organizational commitment (Chun, Sosik, & Yun, 2012). Mentoring relationships can help enhance mentees' perception of the likelihood of career success and help them cope with uncertainty and anxiety.

Examining the potential value of mentoring relationships in the context of workplace diversity, Ragins (2007) argued that mentoring relationship benefits should not be limited to career outcomes and should consider outcomes related to positive organizational relationships and high-quality connections. This approach posits the benefits of mentoring relationships extend to the exchange of resources, the development of authentic and valued identities, psychological growth, and the creation of new knowledge and ways of learning. Workplace mentoring relationships can produce positive psychological outcomes such as self-efficacy, self- confidence, optimism, and resilience. Ragins argued that quality mentoring relationships can provide a safe space in which mentees, and mentors, can explore and develop authentic identities in the workplace. This is especially important for members of equity-deserving groups since organizational norms are often determined by the dominant group. Through mentorship, employees from equity-deserving groups can share and develop strategies to construct or display marginalized identities. Mentors and mentees from equity-deserving groups can also find validation and support within the mentoring relationships even if their full identities are not valued by the organization.

Benefits for mentors

Mentoring is a reciprocal relationship that provides benefits not only to the mentees but also to the mentors. Research on the benefits of mentoring on career outcomes for mentors shows that these relationships can impact career outcomes such as job satisfaction, organizational commitment, job performance, compensation, and promotion.

A meta-analysis of 18 studies that examined the impact of being a mentor on career outcomes concluded that there are clear benefits to providing mentoring (Ghosh, & Reio, 2013). The meta- analysis showed that mentors had better job satisfaction and greater organizational commitment compared to non-mentors. Mentors who provided career support to their mentees fared better than non-mentors in areas related to job performance and career success. To provide mentees with informational and instrumental support related to career development, it is likely that mentors are required to constantly update and enhance their subject matter expertise, which in turn can support their own career progression. The meta-analysis also demonstrated that providing psychosocial support was associated with greater job satisfaction, organizational commitment, and career success for mentors. Mentors who acted as role models for their mentees also reported better job satisfaction and performance. Given that displaying and modeling appropriate behaviours and skills is necessary for a mentor to be credible in the eyes of a mentee, it is likely that mentors may be more motivated to enhance their own performance.

Ramaswami and Dreher (2007) theorized that workplace mentoring relationships supported career and life satisfaction as well as career attainment and salary for mentors through enhanced leadership skills, professional identity validation, improved job performance, and career commitment. The theoretical model posited that mentoring relationships could provide mentors with knowledge of the latest trends and developments, increased awareness, understanding, and appreciation of diversity, increased empathy, a sense of purpose and fulfilment, a reinforcement of one's professional identity, and friendship.

A review of the benefits of being a mentor in the health care context identified several benefits including the personal satisfaction drawn from supporting the development of another person, a positive impact on the person and practice through opportunities to learn and teach, and positive impacts on career success with organizations valuing the contributions of the mentors leading to recognition such as promotions and salary increases (LaFleur & White, 2010).

Mentoring has also been found to support the development of transformational leadership for mentors contributing to the development of skills, competencies, expertise, and identity as a leader and associated behaviours (Chun et al., 2012). This study also found that mentoring can foster a sense of purpose and belonging to the organization for mentors, which may result in increased organizational commitment.

Benefits for organizations

Ramaswami and Dreher's (2007) theoretical model posited that workplace mentoring relationships result in organizational benefits in addition to individual benefits. These benefits include talent pool development, increase productivity and performance, retention, and changes in turnover.

Formal mentoring programs have been found to significantly influence organizational attraction. Jobseekers are more attracted to organizations that offer formal mentoring compared to those that do not (Allen & O'Brien, 2006). That is especially true of jobseekers with greater learning goal orientation, that is individuals who are motivated to improve their ability, acquire skills, and master challenges. This can be especially important for organizations since research has demonstrated that learning goal orientation is associated with greater effort, and a desire to perform well. As shown above, workplace mentoring has also been associated with greater retention of mentors and mentees which can reduce turnover and make organizations' talent development efforts more sustainable.

Mentoring can benefit organizations in the area of talent development. Mentors and mentees can exchange information and knowledge, develop skills, and take on challenges. Additionally, organizations can benefit from the development of leadership skills through mentoring relationships. Chun et al. (2012) showed that mentoring programs can be well-suited to the development of transformational leadership skills, especially among mentors.

Mentoring also benefits organizational culture. Mentoring relationships can promote a common understanding and foster commitment to organizational values, ensuring that employees are the best fit for the organization (Hezlett & Gibson, 2007; Wilson & Elman, 1990). It also encourages prosocial behaviours (Chun et al. 2012) and can support diversity through increased appreciation of diversity and increased empathy (Ragins, 2007).

Speed mentoring

Many mentoring programs and opportunities tend to take place over a medium- to long-term period (usually a few months or more). However, recent innovations have experimented with ways to harness some of the benefits of longer-term mentoring relationships and offer them to mentees and mentors in a shorter, punctual format. These short, punctual interactions are sometimes called flash or speed mentoring. This type of mentoring opportunity is especially popular in the medical and health sciences.

Speed mentoring is based on the concept of speed dating (Ramani et al., 2020). It offers brief mentoring and networking opportunities for mentees – often ranging between 5-60 minutes (Cellini, Serwint, D'Alessandro, Schulte & Osman, 2016). Speed mentoring is often implemented as short-term one-on-one conversations or group-based mentoring conversations involving two to six mentees (Ramani et al., 2020). It provides mentees with the opportunity to network with multiple mentors over a short period of time, pose focused career-based questions, and receive prompt and direct feedback and guidance (Ramani et al., 2020). It provides an opportunity to meet with a multitude of mentors with a diverse set of experiences, knowledge, and skills, which can help mentees develop a "mentoring network" comprised of multiple mentors, rather than relying on a single relationship (Ramani et al., 2020). Speed mentoring can be designed as a single "one-off" mentorship and networking event, or as a mentor-mentee matching event that forms the foundation for a more ongoing mentoring relationship (Kurré, Schweigert, Kulms & Guse, 2014).

Advantages of speed-mentoring for mentees

Mentees find speed mentoring appealing and satisfying (Forbes & Roberts, 2021; Wisner, 2022), and report increased feelings of empowerment after participating in speed mentoring events (Mwaura, Odero-Wanga & Mulu-Mutuku, 2015). Other advantages of speed mentoring include an efficient matching process that offers mentees a voice and choice (Kurré et al., 2014) and increased compatibility between mentors and mentees (Cellini et al., 2016; Kurré et al., 2014). Additionally, relationship quality can be enhanced through professional goal setting which acts as an effective way to establish and maintain close mentorship bonds (Cellini et al., 2016). Social attraction (the degree to which mentees and mentors liked one another and wanted to spend time together) and deep-level similarity (similar attitudes, values, beliefs, and personality) have also been shown to improve relationship quality between mentors and mentees (Wisner, 2022).

Despite the brevity of the speed mentoring events, enduring relationships can occur (Kurré et al., 2014). For example, 60% of mentees and 59% of mentors were still in contact with at least one other mentor/mentee four months after a speed mentoring event (Cellini et al., 2016). Critical factors to develop and sustain enduring mentoring relationships include shared interests, chemistry, mentee initiative, and mentor approachability (Cellini et al., 2016).

These events often have the greatest impact on the mentees' professional networks. Studies have shown that mentees value varied advice from several mentors and the opportunity to build a broader professional network (Cellini

et al., 2016). Mentees appreciate the opportunity to meet with professionals in more senior positions and roles (Pollard, Sharpe, Gali & Moeschler, 2021). Mentees report an increased number of mentors and role models in their lives after attending speed mentoring events (Pollard et al., 2021).

Speed mentoring can also support the mentees' professional development and offers an opportunity for mentees to set short-term professional goals with trusted and experienced mentors (Cellini et al. 2016).

Limitations of speed mentoring

Mentee initiative is often critical in creating and sustaining mentoring relationships after the event. Additional support for mentees and more formalized opportunities for mentees and mentors to reconnect may be needed to allow them to continue engaging with the mentors after the event (Cellini et al., 2016; Pollard et al., 2021). Another challenge is helping mentors and mentees learn to develop effective relationships in short periods of time (Wisner, 2022).

While speed mentoring may be appealing to participants, limited research and evaluation do not provide conclusive evidence of its effects on the personal and career outcomes of participants (Wisner, 2022). Most published literature on speed mentoring involves the evaluation of events held during annual medical conferences or meetings (Ramani et al., 2020). Speed mentoring events have not been deployed and tested in a variety of contexts and for various populations (Wisner, 2022). Currently, there is no available evidence about this approach's effectiveness, feasibility, or acceptability for persons experiencing disabilities.

Experiential and service learning

This body of literature included various approaches to helping persons experiencing disabilities gain exposure to workplaces, such as internships, job shadowing, mock interviews, place-based education, service learning, and experiential learning.

Benefits for mentees

Several benefits have been documented for persons experiencing disabilities. The most commonly reported benefits include improvements in psychological well-being (e.g., self- esteem, self-concept, self-efficacy, self-confidence, etc.) (Hanson, Robinson & Codina, 2021; Remington & Pellicano, 2019; Romualdez, Yirrell & Remington, 2020), interpersonal communication skills (Almalki, 2021;

Bellman, Burgstahler & Ladner, 2014; Kiegaldie et al. 2022), and the acquisition of new professional and work-based skills (Almalki, 2021; Bellman, Burgstahler & Ladner, 2014; Beyer, Meek & Davies, 2016; Hanson, Robinson & Codina, 2021; Kiegaldie et al., 2022; Remington & Pellicano, 2019; Romualdez, Yirrell & Remington, 2020). Additional benefits include:

- Increased work-based aspirations and ambitions for the future (Bellman, Burgstahler & Ladner, 2014; Romualdez, Yirrell & Remington, 2020).

- Improvements in feelings of self-determination (Hanson, Robinson & Codina, 2021).

- Improvements in self-advocacy skills for workplace accommodations (Bellman, Burgstahler & Ladner, 2014).

- Increased professional contacts and networks (Severance & Star, 2011).

- Facilitates the exploration of professional interests and careers (Bellman, Burgstahler & Ladner, 2014; Severance & Star, 2011).

- Valuable workplace experiences (Severance & Star, 2011)

- Long-term employment and independence (Kiegaldie et al. 2022; Schall et al., 2020).

Benefits for mentors and employers

In addition to offering benefits for mentees, this body of literature has identified several benefits for mentors and employers who host service-learning opportunities for persons experiencing disabilities. The most commonly reported benefits include improvements in workplace culture, customer relations and public perception, and attitudes towards persons experiencing disabilities. Benefits include:

- Successfully challenged employees' misconceptions about the contributions that people experiencing learning disabilities can make in the workplace (Romualdez, Yirrell & Remington, 2020).

- Employees learned to see people experiencing disabilities as capable employees and colleagues (Hanson, Robinson & Codina, 2021).

- Employees reported greater understanding and compassion for people experiencing disabilities (Riesen & Oertle, 2019).

- In one study, employers commented on the loyalty, trustworthiness, and reliability of employees who are on the autism spectrum scale (Remington & Pellicano, 2019).

- Employers reported positive perceptions about the frequency and independence with which tasks are performed (Remington, Heasman, Romualdez & Pellicano, 2022).

- Increased perception of workplace ethos, job satisfaction, personal satisfaction, enjoyment, and personal development (Hanson, Robinson & Codina, 2021).

- Employers reported high satisfaction rates with work performed by people experiencing disabilities (Beyer, Meek & Davies, 2016).

- Employers reported that service-learning opportunities offered many benefits, including: tax credits, supporting everyone's right to meaningful employment, gaining loyal and hardworking employees, improving the lives of people in the surrounding community, and supporting their mission statements (Riesen & Oertle, 2019).

- Improved productivity of other staff, attitude of other staff to work, diversity, company image and customer relations (Beyer, Meek & Davies, 2016).

Considerations and challenges

Several considerations surfaced while reviewing this body of literature that are worthy of mentioning.

- **Help mentees develop self-advocacy skills:** In work-based education programs for high-school students experiencing severe disabilities, it is recommended that programs incorporate opportunities for youth to develop self-advocacy skills by learning to negotiate the workplace accommodations they require to be successful (Hutchinson et al. 2011). Helping mentees learn to disclose their disability status has also been identified as a key area for future development (Dollinger, Finneran & Ajjawi, 2022).

- **Support employers to understand accommodations:** In one study, fewer than half (35%) of employers hosting youth experiencing disabilities received training specific to supporting accommodation requests. This study also discussed the importance of creating the space and time for ongoing accommodation discussions and learning for mentees, mentors, and employers (Aquino & Plump, 2022). This challenge has been documented in at least two other research studies as well (Remington, Heasman, Romualdez & Pellicano, 2022; Remington & Pellicano, 2019).

- **Help employers understand mentees' needs:** In a study on the perspectives of 155 Canadian young adults living with disabilities, the top barriers to

employment included health benefits and soft accommodations (e.g., scheduling modifications, self- management support, workplace social support and informal modifications to job tasks). Additional challenges included disability disclosure, the perceived cost of accommodation, the potential inability to accommodate job duties, and negative attitudes towards people experiencing disabilities within the workplace (Jetha, Bowring, Furrie, Smith & Breslin, 2019).

- **Help employers prepare for challenges:** In another research study, researchers discovered that the most frequent "problem behaviours" during work-based learning opportunities were off-task behaviours. Although these behaviours were minor, they were frequent – lending some evidence to the idea that future employers and mentors may require training on how to manage these behaviours and/or helping mentees learn self-monitoring skills (Kittelman, Mazzotti, McCroskey, Bromley & Hirano, 2020).

Challenges, gaps, & limitations

Challenges and difficulties accessing mentoring opportunities

Close to 40% of respondents experiencing a disability who were surveyed as part of the State of Mentoring study did not have access to a single mentor during their childhood and adolescence (Mentor Canada, 2022). Moreover, over two-thirds of respondents experiencing a disability could recall a time growing up when they wanted a mentor but did not have access to one. The most common barriers youth experiencing disabilities faced accessing mentorship included not knowing how to find a mentor, not understanding what mentoring was or its value, and not having access to a mentoring program. Additionally, youth experiencing a disability reported that the programs that were available to them did not seem relevant to their lives in higher proportions than other survey respondents.

Persons experiencing disabilities often face additional barriers to accessing mentorship opportunities (Daughtry, Gibson, & Abels, 2009). Physical barriers include transportation and inaccessible environments. Mainstream mentoring programs may also fall short of offering accommodations for individuals experiencing disabilities such as program materials available in alternative formats. Psychological barriers include social prejudices and stigmatization of individuals experiencing disabilities which may discourage these individuals

from participating in disability-related programs. For mainstream programs, staff and mentors may lack knowledge of the impact of disabilities on the creation of mentoring relationships.

The National Disability Mentoring Coalition (2017) in the United States identified several challenges and policy priority areas regarding mentoring as a disability inclusion strategy including:

- The need to invest in mentoring as a fundamental component of transition, employment, re-entry, and independent living programs.

- The limited data and research on what practices contribute to making mentoring effective and how it impacts people with disabilities at various life stages.

Gaps, limitations, and opportunities for future research

Several organizations have implemented mentoring programs to support inclusion for people who experience disabilities. Many of these programs focus on career exploration, employment readiness, and the transition to employment. These programs state that they provide various benefits to program participants, however, very few have released evaluation data to demonstrate their impact.

The literature on mentoring shows that it can be effective in achieving a wide range of outcomes. However, there are several limitations in the research on mentoring:

- Studies have mostly focused on medium- to long-term mentoring programs and there is limited evidence about the effectiveness of shorter mentoring initiatives. Speed mentoring initiatives, for example, have rarely been rigorously evaluated or implemented, especially outside of the health sciences field.

- Mentoring for youth or young adults experiencing disabilities and mentoring to support employment readiness and the transition to employment are better researched than mentoring for older adults and career mentoring for persons experiencing disabilities. Importantly, there is limited research on the specific challenges, benefits, and impact of career mentoring for persons experiencing disabilities.

- Current research findings do not provide conclusive answers to the questions of how to best structure a program to meet the needs and objectives of particular demographic groups. Consequently, there is no understanding of what program characteristics (e.g., duration, dosage,

format, medium, mentor characteristics, etc.) support successful mentoring programs (i.e., relationship quality, outcomes achievement) for which populations (e.g., type of disability or other aspect of social identity). Some studies have explored how various aspects of identity can have an incidence on program outcomes, but current research does not fully account for individuals' complex social identities. Simply put, current research does not provide an answer to the question of what works for who and under what conditions (Lindsay et al., 2016).

Another limitation of this review and of the research is that the concept of disability is a colonial construct which is at odds with Indigenous worldviews and many Indigenous languages do not have a word to describe the concept. Communities celebrate an individual's unique gift, and do not focus on what they might be lacking or cannot do (Ineese-Nash, 2020; Rivas Velarde, 2018). Nevertheless, as a result of colonialism, a larger proportion of Indigenous individuals experience disability compared to non-Indigenous individuals. Indigenous peoples are confronted to many social conditions that impact their health and well-being and additional barriers to accessing support due to geography, funding, and systemic racism (Ineese-Nash, 2020).

Additional research is needed to help service providers, community organizations, academic institutions, and employers design effective mentoring opportunities for people experiencing disabilities. The need for stronger evidence is salient in the following areas:

- **Research on career and workplace mentoring for adult mentees and mentors with disabilities.** There is scant research in this area for adults with disabilities. This lack of evidence does not allow understanding of how mentees and mentors experiencing disabilities benefit from mentoring. It also does not answer questions about how to best design and implement effective mentoring programs and initiatives for employees experiencing disabilities.

- **Research on mentoring for persons experiencing different types of disabilities.** More research is required to gain a nuanced understanding of how to design and deliver effective and high-quality mentoring programs and initiatives for people experiencing various types of disabilities such as physical, cognitive, learning, developmental, or multiple disabilities.

- **Research on the mentoring experiences of Indigenous people living experiencing disability.** Given Indigenous worldviews about disability, the importance of relationships for intergenerational knowledge transmission in Indigenous communities, and the ongoing impacts of colonialism, there is a need for evidence about how to build effective and meaningful

mentorship opportunities specifically for Indigenous mentors and mentees experiencing disability.

- **Research on the benefits of short-term mentoring opportunities.** Shorter interventions and relationships are becoming more common but there is a limited understanding of how these opportunities influence to personal and professional trajectories and contribute to the success of persons experiencing disabilities.

The evidence reviewed suggests that mentoring is a promising approach to supporting the socio-economic integration of persons experiencing disabilities. However, researchers and practitioners have cautioned against promoting mentoring as a panacea and against unrealistic expectations. Mentoring interventions can have a significant effect on socio-emotional outcomes, cognitive outcomes, health and well-being outcomes, academic and vocational outcomes, but effect sizes tend to be small to medium (Allen et al., 2008; Raposa, Rhodes, Stam, et al., 2019). In the case of career mentoring, Allen et al. (2008) concluded that mentoring may more easily influence attitudes (e.g., satisfaction, expectations), motivation, and interpersonal relationships than health-related or some career outcomes (e.g., promotions, salary). Stelter et al. (n.d.) concluded that mentoring can encourage career interest and exploration in young people but cautioned that it alone is likely to be insufficient for promoting employment and career outcomes for youth who face additional barriers and who could benefit from supplemental academic and career-related supports.

Conclusion

Emerging evidence suggests that mentoring relationships are an effective way of supporting the social and employment inclusion of persons experiencing disability. Mentoring programs provide mentees, mentors, and organizations with several benefits. Potential benefits for mentees include increased self-determination and empowerment, increased self-confidence and positive sense of identity, increased education and career planning and preparedness, increased educational, career, and community participation. In the workplace, mentees can benefit from improved career satisfaction and career progression. Potential benefits for mentors include a sense of purpose and satisfaction in helping others, increased job satisfaction and organizational commitment, improved career outcomes such as salary and promotion, and skill- development such as communication and leadership skills. These benefits trickle down to organizations as well. Improved mentor and mentee performance, job satisfaction, attraction and retention, improved workplace culture, and talent development are all significant benefits of mentoring for organizations.

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Appendix A: Key Definitions

Academic mentoring refers to the mentoring relationship in academic contexts (post- secondary) between faculty members and students or peer-mentoring relationships between students. Mentoring relationships between faculty and students can support psychological adjustment and the development of a professional identity.

Peer mentoring refers to a mentoring relationship in which mentees and mentors share similarities such as age or experiences. Although near peers, mentors are usually slightly more experienced than the mentees.

Workplace or career mentoring takes place in employment settings for the purpose of the professional and personal development of the mentee.

Youth mentoring refers to mentoring relationships for children and youth. This type of mentoring posits that supportive relationships with adults or peers are important to support personal, cognitive, and psychological development for children and youth.

Scoping review refers to an assessment of the scope and size of existing research to assess the nature and the extent of the available evidence on a potentially complex topic. Scoping reviews also aim to summarize the evidence and identify gaps in knowledge.

Systematic review refers to the comprehensive identification, appraisal, and synthesis of all relevant studies on a given topic based on a pre-determined search strategy.

Meta-analysis refers to a statistical analysis which combines the results of multiple studies addressing the same question to calculate an overall effect.

Appendix B: Overview of search strategy for academic literature Review

We searched for academic articles that were written in English and published in peer-reviewed journals. No date restrictions were applied to capture as many articles as possible. A complete list of our search terms is provided below.

1. Mentor* AND disab* = 1,590 results

2. Mentor* AND disab* AND Canada = 115 results

3. Mentor* AND disab* AND work* = 876 results

4. Mentor* AND workplace inclusion = 192 results

5. Mentor* AND career exploration = 306 results

6. Speed mentoring = 142 results

7. Flash mentoring = 10 results

8. Disab* AND experiential learning = 669 results

9. Disab* AND internship = 649 results

10. Disab* AND transition = 13,439 results

11. Disab* AND job shadow* = 27 results

12. Disab* AND service learning = 21,940 results

13. Disab* AND integrated placement = 310 results.

14. Disab* AND work reintegration = 675 results.

15. Disab* AND work based learning = 6,310 results.

Abstracts were reviewed and relevant studies were included in the review.

Appendix C: Examples of speed mentoring models

5 Minute Mentoring Conversations (Kurré et al. 2014):

Mentors and mentees submitted online profiles

→ mentees explored mentor's profiles, selected the mentors they wished to meet with, and prepared questions for those mentors

→ mentors received the profiles of all mentees interested in meeting with them

→ mentees met with each of their selected mentors (in-person) for 5 minutes each and asked their pre-prepared questions

→ after meeting with one another, mentors and mentees rank-ordered their top choices

→ mentors and mentees met for a minimum of 6 months after the speed mentoring event on their own terms.

10 Minute Mentoring Conversations (Cellini et al. 2016):

Mentees created professional goals prior to the event and ranked their top 3 professional categories in which they wanted to receive mentorship (e.g., career development, leadership skills, work-life balance etc.)

→ mentors self-identified their areas of expertise

→ mentees matched with mentors based on their categories of interest and mentor expertise

→ before meeting one another, each mentee created pre-prepared questions for their mentors and shared their resumes to introduce themselves, receive models of more advanced resumes from their mentors, and provide mentors an opportunity to prepare their conversations with their mentees and how they might help them advance their own resumes

→ each mentee visited in-person with 6 mentors (in-person) from the US and Canada for 10 minutes and discussed their questions and goals

→ mentors and mentees participated in a 1-hour informal networking lunch according to their goals and interests

→ mentees set professional goals during lunch

→ after the event, mentors and mentees continue communicating via email, phone calls, or meeting at future professional events to discuss personal and professional topics (most often mentees initiated contact)

→ 3 months after the event, mentors sent a reminder email to mentees about their goals and current progress towards those goals

→ after 4-months, the program concluded, mentors and mentees were responsible for communicating on their own, if they wish.

20 Minute Mentoring Conversations (Ramani et al. 2020):

Groups of 6 mentees sat down at a table involving 3 mentors for a 20-minute conversation

→ each table focused on a specific career-focused question (e.g., starting a career, mid-career advancement, leadership etc.) that the mentors had prepared answers and advice for

→ each 20-minute conversation began with a quick ice-breaker and/or conversation-starter activity

→ after 20 minutes, the group of 6 mentees circulated to another table of mentors (5 tables in total)

→ after circulating to each of the 5 tables, the event concluded with each table of mentors summarizing the conversations they had with each group of mentees and providing the key insights and takeaways

→ these key takeaways were translated to a handout and shared with each mentee.

Organizing Speed Mentoring Events: Evidence-Based Insights & Recommendations (Ramani et al. 2020).

Planning:

- Agree upon and draft the desired goals and outcomes of the event – create logic models and theories of change if necessary.

- Decide whether mentors and mentees will meet with one another during multiple quick interactions (5-10 minutes) or in a more extended small-group approach (10-30 minutes).

Mentor Recruitment & Preparation:

- Recruit mentors according to the goals of the workshop – match their skills and interests to that of mentees. Focus on including a diverse set of mentors (geographical, skills, careers, titles, cultural etc.).

- Mentors should be asked about their preferences, availability, and/or willingness to commit to ongoing contact if long-term relationships are expected or hoped for

Mentee Preparation:

- Provide mentees with profiles of each mentor prior to mentoring; invite mentees to create career-related questions.

- If relationships are not designed to endure past the event, mentees should be provided clear expectations with no expectation of a longer relationship

Mentoring Sessions:

- Use name tags for mentees to minimize time on introductions and prioritize professional development conversations

Post-Event:

- Host debrief and group reflections to continuously improve the program

- Can host a website, blog, or discussion forum for mentees to support one another and post questions for mentors on an ongoing basis