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Review Report

Exploring Institutional Support Needs for Career Transitioning among Students with Visual Impairments: A Scoping Review

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Abstract: Students with visual impairments (VI) are among the groups of students needing specialized resources and supports for their school success. Using a scoping review, the institutional support services needed by visually impaired students were examined in this paper. It looked at different strategies for putting these students' institutional support into practice and collated such strategies into levels that can inform inclusive practices in higher institutions of learning. The study followed a PRISMA protocol to present a descriptive analysis of peer-reviewed publications gathered from PubMed, Scopus, Google Scholars, and PsychInfo. Eight peer reviewed papers with a sample of 316 (303 post-secondary school students with VI and 13 teachers) were drawn for the study after eligibility assessment. It was found that post-secondary school students with VI still requires a number of institutional support modalities for their smooth career transition. Institutional support needs were described under the career challenges experienced by students with visual impairments and the needs for institutional support for building on smooth transition from school to career. It was deduced that student with VI still experiences barriers such as inadequately trained teachers, ill-equipped schools to address their needs, financial challenges, public stigma, accessibility, peer-to-peer acceptance and difficulties in learning at the university. The support needed from the institution were found to be those associated with academic support, integration into the social environment, need for institutional structural support services, and career transition intervention support. Practical implications demonstrates that educational institutions play a big part in helping visually impaired students in career transition. These implications can be built into a framework of action for institutional support for students with VI in schools as proposed in this paper.

Keywords: Career transitioning, Post-secondary school, Visual Impairments

1. Introduction

Currently, people with disabilities, including visually impaired students, rank among the most socially disadvantaged groups across all countries. An estimated 85% of the world's impaired children under the age of 15 live in developing countries (Helander, 1993) and are largely constrained in educational settings. Students who are visually impaired (VI) experience a range of social and academic obstacles as to difficulties figuring out how to fit in at school. Retaking the same course, picking up new learning skills necessary to meet academic challenges, and even staying in college longer than anticipated are some examples of adjustment challenges that the students with VI face (Gurb, 2000; Opie, 2018). The absence of institutional support for students, particularly those with VI, is one of the reasons why a lot of students struggle in the classroom. People with disabilities typically have lower course completion rates, academic achievement, and job outcomes when compared to the general non-disabled student population (Cavallaro et al., 2005; Gryphon & Beddie, 2011; Karmel & Nguyen, 2008). Practicing inclusive education in the academic settings is the major part of support strategy for students with VI. Stephenson (2005), Rogers (1993), and Guruji (1994) defined inclusive education as integrating all students, regardless of ability level, into every aspect of the curriculum in conventional schools. Inclusive education not only integrates the students in regular school, it is more of evidence-based practices that are geared towards equity in the term of support system, advocacy and full participation of the students with disabilities. Certain characteristics of visually impaired students call for extra instructional support in the classroom (Smith et al., 2004). Omer (2015) states that these students include people who struggle academically and behaviorally, come from a variety of cultural and linguistic backgrounds, have ongoing medical conditions, and are visually impaired. Schools are striving to ensure that every student's needs are met within a fair and acceptable educational framework (Loreman et al., 2005; Hatton, 2014). Inclusion is important because research indicates that students with disabilities, including those with visual impairments, perform better academically in inclusive environments than in special education settings (Rosenblum, Cheng, & Beal, 2018; Shaw, 2023). Furthermore, inclusion gives disabled students the opportunity to build bonds, respect, and relationships that will enable them to become contributing members of society and accomplish their goals and career transitioning through networking(Simeonsson et al., 2001; Shaw, 2023). The question that is paramount is, are students with VI who are in post-secondary schools included in school activity through full inclusive education practices?

Study conducted by Ferreira, and Manis (2022) found that students with visual impairments are struggling in inclusive settings due to their needs not being attended to. The study showed that teachers viewed themselves as not sufficiently prepared to teach students with VI outside of special schools for the blind. Ferreira, and Manis observed that mainstream schools are ill-equipped to meet the needs of VI students, and that the implications of an inclusive educational policy have not been well addressed. The stated outcomes of Ferreira and colleague indicate huge challenges with regards to inclusive education for students with VI. Miyauchi, (2020) indicated that general education teachers' opinions regarding VI students' inclusion bidirectional and were influenced by teacher, student, and environmental factors. Miyauchi presented teachers' feeling of unpreparedness as having a significant

impact on inclusion of students with VI, and noted that these issues have short- and long-term effects on the students' transition process. Miyauchi further expressed that one of the key aspects accessibility was building general education teachers with a generic set of good pedagogical practices, effective teaching-learning instruments, and external support.

Individuals who are visually impaired are among the most disadvantaged groups in the world (Giddens, 2006). Because universities offer occupational expertise as well as a means of socialization and commitment, they are essential for preparing visually impaired students for adulthood (Avrahami, 1997). In order for students with visual impairments to graduate and pursue economic and social independence, sufficient institutional support is necessary. But most of these students struggle academically and socially in an unsupportive environment, which makes them come up with their own ways to cope with life at university. Many of them come to the realization that they lack the learning abilities needed to succeed academically. Beyond the difficulties faced by other students, students with VI also have to learn how to get around in a new environment and build support networks (Almog, 2011). Visual impairment is often characterized as a "high-needs" and "low-incidence" disability (Lieberman, Lepore, Lepore-Stevens, & Ball, 2019). According to the Individuals with Disabilities Education Act (IDEA), (2004), the feature of high needs indicates a VI high level disabling condition that highlights the indispensible need for support. On the other hand, "low incidence" suggests a low prevalence. Therefore, even though VI is less common than 1%, its "High needs" feature indicates that a great deal of support services are required in order to enable them gain access to the general education curriculum (Ahsan, & Sharma, 2018), and accomplish a sustainable career path. Students with severe visual impairment, for example, will require instruction in Braille, orientation and mobility, and the use of assistive technologies with guidance from instructors who are qualified to teach the visually impaired. It was common for pupils with such a "low-incidence, high-needs" disability to be accommodated in a special school for the blind in the past when children with disabilities were primarily taught apart from those without disabilities. However, the current move to inclusive education paradigm is a welcome development and as well makes tailored learning challenging for both VI students and the teachers. They are frequently put in inclusive settings where there is little support and a strong reliance on vision (Opie, 2018). Assistance is needed to help visually impaired students adjust academically, physically, and socially. Studies indicate that challenges at school have been reported by students with visual impairments (Klingenberg, Holkesvik, & Augestad, 2019; Ostrowski, 2016). Also, teachers report a great deal of challenges in teaching students with VI. Consequently, students with VI tend to present problems associated with school completion (Miyauchi, 2020; Negash, & Gasa, 2022), and/or career and employment after school completion.

These issues tend to limit the good intention of the Millennium Development Goals of 2030 agenda, which has poverty reduction (goal 1); inclusive and equitable quality education and lifelong learning (goal 4); sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (goal 8) as specific goals. Supporting students with visual impairments through postsecondary school and towards reasonable career is a functional way of reducing poverty and prepare them for the more complicated world of work beyond school completion.

It is worrisome that higher institution may not practice a fully developed supportive framework for helping students with visual impairments transition smoothly into sustainable career after school completion (Ferreira, & Manis, 2022). Studies have recorded great deal of challenges experienced by VI students even after school graduation (Amin, Sarnon, Akhir, Zakaria, & Badri, 2021; Mitchell, & Sutherland, 2020). These authors clarified the issues regarding the support needs for career transitioning among students with visual impairments. However, little is known regarding the institutional support needed by students with visual impairments and how such supports could translate to smooth transition to career life after schooling. In this review, I examined the institutional supports needs for students who are visually impaired and how institutions can help students with VI transition into new careers that can enable them lead a fulfilled life.

According to Benz et al. (2000) and Bremer et al. (2003), academic competency is the primary factor influencing the successful career transition of people with disabilities, including visually impaired students. According to Kirchner and Smith (2005), the rate of employment in the labor force rises as one's level of education does. Shaw et al. (2007) found similar results and advised parents to ensure their disabled children received the best education possible. They discovered a strong correlation between changing careers and academic success. The provision of necessary skills for the workplace is a primary responsibility of academic institutions in aiding visually impaired students in their career transition. Students who have visual impairments fall into a specific group and have unique needs. To help students with visual impairments be fully prepared for career transitioning, the institution offers note-takers, advocacy support, personal and career counseling services, and accommodations (Solberg et al., 2014). Students with visual impairments usually require instruction in a variety of skills necessary for independent living, such as mobility and orientation, for safe transportation. The institution must provide these skills in order to prepare these students for adult life (Griffin-Shirley et al., 2000). If these students are to succeed academically and in their career pursuits, the universities and training facilities must unquestionably offer them sufficient support and accommodations. The completion of a university education program is the best predictor of employment for students with visual impairments (McDonnall, 2005). As a result, every institution wants to make sure that visually impaired students receive all the support they need to finish their university education.

Previous data indicates that students with visual impairments typically participate in school and work at low rates, despite the fact that these activities are essential for future study and career transition (Crudden, 2012; McDonnall, 2010; McDonnall & Crudden, 2009). Research conducted in the United States and the United Kingdom revealed that students with visual impairments perform poorly in school and the workforce (Simkiss, 2004; Wolffe & Candela, 2002). Adolescents and young adults with visual impairments are more likely to be underemployed and are less likely to earn after graduation (American Foundation for the Blind, 2006; Economic and Social Research Council, 2006). As a result, organizations must look for and adopt fresh, innovative strategies to help students with visual impairments transition successfully into the workforce, since education is paramount for these students to be gainfully employed. The institutional support may play the role of building career paths

and choices (Eseadi, & Diale, 2023; Mutanga, Piyose, & Ndovela, 2023), building career self-efficacy (Wolffe, 2019), reducing career anxiety (Patterson, & Loomis, 2016), improving mental health for effective career growth (Eseadi, 2023), and advocacy in the world of work (Datta, & Palmer, 2015). Eseadi (2023) identified some special elements of career education for students with visual impairments to include exposure to visual input, work opportunities, reasonable expectations, and constructive criticism. According to Patterson and Loomis (2016), educational institutions have the capacity to educate multiple student groups concurrently and foster stronger relationships between local public and private employers, universities, and schools. Using outreach approach can result in building relationships that facilitate education and employment for students who are visually impaired.

1.2. Statement of Problem

Studies have placed emphasis on the value of comprehensive support systems and teacher preparation (Selickaitė, Hutzler, Pukėnas, Block, & Rėklaitienė, 2019). More mental and technical preparations are needed for teachers in the post-secondary education institutions for the implementation while extra time need to be allotted to finish coursework in order to account for students with visual impairments who learn slowly. Diale and Eseadi (2023) and Patterson and Loomis (2016) agreed that visually impaired students can find employment in competitive jobs if they have requisite job skills and overcome certain obstacles associated with being hired. For a successful career transition experience, these students must be well-versed in essential job skills and be supported in their job search and placement. Therefore, giving those who are visually impaired access to learning support is crucial to boosting their involvement in school and success in their post-secondary careers pursuit (Hartley, 2010; Morrison et al., 2010; Ylvisaker et al., 2001). VI students encounter obstacles in addition to the regular challenges of accessing and navigating the university overwhelming completion requirements. Some primary difficulties that may be experienced by VI students include lack of resources, trouble getting lecture notes, inadequate instructional assistance, issues with readers, and a shortage of supportive library resources (Amin, Sarnon, Akhir, Zakaria, & Badri, 2021).

Supporting students with VI to participate in postsecondary education and subsequent career transitions may prove to be challenging in practice. It comprises discussing and implementing the best learning practices and available aids, in addition to determining the assistance needs of visually impaired students (Fossey et al., 2015). The complexity and diversity of these processes require participation and contributions from instructors, students, and staff from specialized disability services, which collectively form the dimensions of institutional supports. Yet it is not clear whether there is a consensus regarding the specific support needs of post-secondary students with VI for smooth career transitioning after school completion. Available studies relied mainly on primary data which mostly are generated through interview of a few individuals, and have the limitation of small samples. A review study is needed to bring together perspectives that will strengthen argument and advocacy towards meeting the needs of VI in career transitioning during and after higher education. The current study yields itself to exploring the support needs of VI students through a scoping review, with the aim of assessing findings of different specific studies. This will widen the understanding of the knowledge

base for supporting students with VI in career transitioning.

1.3. Purpose of the Study

The current study sought to explore the institutional supports needs for career transitioning among students with visual impairments. Specific purposes includes:

(a) Explore the challenges encountered by students with VI post-secondary schools during career transitioning.

(b) Explore the dimensions of institutional supports needed by students with VI for career transitioning.

1.4. Review Questions

(a) What are the challenges encountered by students with VI post-secondary schools during career transitioning?

(b) What are the dimensions of institutional supports needed by students with VI for career transitioning?

1.5. Theoretical Framework

Nancy K. Schlossberg's Transition Theory provides a framework for understanding how people deal with life transitions (Schlossberg, 1981). A transition, according to Schlossberg, is "any event, or non-event, that results in changed relationships, routines, assumptions, and roles". Importantly, a circumstance is only regarded a transition if the individual sees it as such. According to Schlossberg, transitions are classified into three types: planned transitions, which reflect anticipated life events, unplanned transitions, which are unexpected or unplanned occurrences, and non-events, which correspond to anticipated events that do not materialize. According to Schlossberg's model, transitions are a process with no final endpoint. It involves phases of absorption and continual evaluation as people enter, progress through, and exit the transition. This theory focuses on how people cope with transitions and can be used to better understand and help visually impaired students as they make the move from school to work. Here's how we can visualize this support using Schlossberg's idea. Schlossberg created a 4S framework to understand transitions, which displays four fundamental aspects that influence an individual's ability to cope with transition. These factors include: 1) Situation which depicts conditions surrounding the shift, including the time, duration, and contexts that serve as the transition's anchor. 2) Self: Personal features and psychological resources that define the individual in transition. Individuals can receive social help during their transition. 3) Strategies include coping techniques and ways used to handle transition; 4) Support: individuals can receive social help during their transition. The framework can be represented as in the figure 1.

Figure 1: A career transition model for institutional support (Schlossberg, 1981).

Schlossberg's idea, was originally designed for adults, and has also been found to be relevant to young people and college students. The theory highlights that people are constantly experiencing changes throughout their lives, and that an individual's reaction to a transition is determined by the sort of transition, their perception of it, the environment in which it occurs, and the influence on their life. Schlossberg's Transition Theory provides an all-inclusive framework for understanding and assisting people as they go through various life transitions (Eseadi, 2023). Its adaptability and applicability to a wide range of scenarios make it a vital resource for counselors, educators, and other professionals who interact with people going through transitions.

2. Materials and Methods

1.1. Design for the Study

The study was a scoping review.

2.2. Search Procedure

I searched online data bases for pertinent research publications. Literature search conducted was done using phrases such as institutional support for "visually impaired students" "visually impaired students' supports' teaching students with visually impaired" supporting learning in visually impaired students" university student with visual impairment" "transition support for students with visual impairments" These phrases and causes were searched in PubMed, Scopus, Google Scholars, and PsychInfo between January and April 2024. Based on this study abstracts were assessed for eligibility. All studies accessed which met the inclusion criteria were included in the study.

2.3. Selection strategy and Eligibility Criteria

Based on the search strategy, I found 139 studies addressing institutional support, learning and transition to career among students with visual impairments. All the generated works were fully screened based on the study inclusion criteria set by the researcher. All the selected articles were checked based on the information on the abstracts. Inclusion criteria set by the researcher include: (1) The language of the article must be English; (2) The study full text must be available online; (3) studies

sample must be students or teachers; (4) the study must have presented a set of primary data; (5) quantitative, qualitative, or mixed methods; and (6) the study must focus on institutional supports and must be published in not earlier than 2014. The following exclusion criteria were adopted: (1) articles such as reviews, opinions, and periodicals or letters. (2) Studies that the full text are could not be accesses; (3) Studies that were not published in English (3) studies that did not report institutional support needs of VI students (4) studies relying on secondary data.

2.4 Data Analysis

Out of 139 studies identified, 91 studies could be accessed in full text, and were screened. After the first phase of screening, 52 articles were dropped due to topics not aligning with the study aim. So, only 39 articles survived the screening stage and were subjected to abstract examination and full text retrieval. The 39 articles abstracts were assessed for eligibility. 11 articles were removed due to abstracts not aligning or not comprehensive enough for data extraction and only 28 articles were left. The 28 full-text articles that survived this stage were laid abreast with the inclusion and exclusion criteria and only 9 articles met all the stated criteria. The articles that survived the rigorous selection procedure are presented the Table 1.

3. Results and Discussion

Table 1: Characteristics of the included studies

Author (s)/year	Country	Design	Objectives	Sample	Result
Ferreira and Manis (2022)	South Africa	Qualitative	Investigated the inclusive education policy implementation with learners with VI	252 teachers	Teachers perceived themselves as inadequately trained to teach learners with VI outside school of the blind; that mainstream schools are ill equipped to address the needs of these learners.
Amin, Sarnon, Akhir, Zakaria, and Badri(2021)	Malaysia	Qualitative approach	Explored how students with visual impairment experience their life at a	5 students with VI	Five main challenges in higher education including financial

			higher education institution		challenges, public stigma, accessibility, peer-to-peer acceptance and difficulties in learning at the university.
Firat (2021)		Qualitative study with semi-structured interview	Explored the factors that facilitate and complicate the higher education process for students with VI	6 university students with VI and 8 faculty members	Students with VI face barriers related to lack of materials, difficulty obtaining lecture notes, poor academic support, reading-related problems, insufficient library sources, and access to and within the university. Positive facilitators were mostly related to personal factors as well as peer/academic supports.
Mendonça, Souza, Arruda, Noll, and Guimarães (2021)	Brazil	Qualitative analysis	Describe the experience of a Support Teacher in the development of inclusive	A student with low vision and blindness and a Support Teacher.	Student with VI faced the greatest difficulty in dealing with the emotional

			pedagogical practices for the discipline of Human Anatomy offered in the physiotherapy course for a student with low vision and blindness. The challenges and learning difficulties faced by a visually impaired student are reported.		aspects, due to the inability to visualize the anatomical details in human cadavers. Thus, the presence of a Support Teacher was fundamental to ensure that the student could learn the content and overcome this limitation.
Mwakyeja (2013)	Tanzania	qualitative case study design	Investigating the way general teachers teach students with visual impairments in inclusive classrooms and the challenges facing them.	Four (4) general teachers teaching in classes having students with visual impairments.	General teachers have little knowledge about inclusive education and how it should be practiced for students with VI .
Kija and Mgumba (2024)		multiple case study design and the qualitative approach	Barriers in the learning of students with VI and the extent to which inclusive education can be promoted in the universities.	22 participants who participated in interview	Students with visual impairments were faced by various barriers, including challenges in interaction with the physical and social environment;

					inadequate learning support services; and inaccessible information.
Nnama-Okechukwu, Chukwuka and Okoye (2020)	Nigeria	qualitative study using focus group discussion	Available institutional support services for undergraduate students with visual impairment within the University of Nigeria, Nsukka.	17 undergraduate students with visual impairment.	Discontent by the majority of study participants over institutional support services.
Crudden (2019)		Five focus groups were conducted	Examined rehabilitation providers' beliefs about services and strategies for successful facilitation of transition from school to employment.	316 (303 post secondary school students with VI and 13 teachers	Transition services before age 16, collaboration between service providers and families, early assessment, and the development of specific skills are factors that can facilitate career transition.

3.1. *Challenges encountered by students with VI post-secondary schools during career transitioning*

According to the results presented in Table 1, mainstream school teachers are not equipped to

address the needs of VI learners (Ferreira, & Manis, 2022). Inadequately trained teachers, ill-equipped schools to address the needs of these learners were the major challenges found in Ferreira, & Manis, (2022). This outcome agreed with Amin, Sarnon, Akhir, Zakaria, &Badri, (2021) who found that VI students experience five main challenges in higher education including financial challenges, public stigma, accessibility, peer-to-peer acceptance and difficulties in learning at the university. These highlight the multidimensional support needs of VI university students, and how it may influence their career path. This outcome is supported by numerous perspectives in the literature. For instance, study shows that in order to overcome the challenges associated with being visually impaired and to increase program engagement and graduation rates, it is imperative that visually impaired students receive more effective support (National VET Equity Advisory Council, 2011).

The support needs of students with visual impairments are multifaceted and multileveled. At the lowest level of need, all students with visual impairments need a set of basic assistance in terms of resources and school structure (Mitchell, & Sutherland, 2020). Moving along a pyramid of support, only a few students have access to full package of institutional support (Miyauchi, 2020), as every kind of assistance given to pupils with visual impairments needs to include social and educational components. The two main factors have an impact on these students' overall functioning and well-being, including their pursuit of a career (Fleming, & Fairweather, 2012). The basic elements of institutional support found in the literature include: academic support, integration into the social environment, institutional support services for Students with VI; implementation of inclusive education; provision of individualized education plan; residential accommodation, access to assistive technology/adaptive equipment, mobility/transportation services, provision of psychological/counselling services, and special library and information services (Amin, et al., 2021; Zebehazy, et al., 202). Opie (2018) highlighted similar basic strategies and called it expanded curriculum. According to Opie, the components of expanded core curriculum for children with VI included nine areas: compensatory or access skills, orientation and mobility skills and concepts, social interaction skills, use of technology and assistive technology, career education, independent living skills, recreational and leisure skills, self-determination skills, and sensory efficiency skills (Kelly, 2015; Sapp & Hatlen, 2010).

3.2. *The dimensions of institutional supports needed by students with VI for career transitioning*

3.2.1. Academic/learning support

Results show that students with VI face barriers related to lack of materials, difficulty obtaining lecture notes, poor academic support, reader-related problems, insufficient library sources, and access to and within the university (Firat, 2021). Students with visual impairments admitted that they had trouble studying and summarizing course material, reading from the board, and finishing assignments (Amin, Sarnon, Akhir, Zakaria, & Badri, 2021; Firat, 2021; Zebehazy, & Wilton, 2021). According to graduates who are blind or visually impaired, the biggest obstacles they face are using the library, finding learning resources, and locating relevant learning materials (like Braille books) (Berman & Naon, 2004). It is important to understand that university coursework has different requirements (the quantity and ambiguity of learning materials, the way in which materials are developed and delivered,

etc.) even though a student may have mastered excellent study habits while in high school. In college, knowledge is primarily acquired through the auditory channel, but in high school, learning is primarily accomplished through alternative methods (such as touch or feel). In a systematic review, Miyauchi, (2020) found that visually impaired students were not included in classroom activities at college, even though they appeared to be studying at or above grade level. Miyauchi observed that such constraints have both immediate and long-term effects, and identified effective teaching-learning tools, external support, and general education teachers with a broad repertoire of successful pedagogical strategies as critical components in making subjects more inclusive.

Due to unclear or unfavorable perceptions of their disabilities, students with visual impairments occasionally have a different educational experience from their sighted counterparts (Faraj, 2005). Research on the learning capacities of visually impaired high school students (Hoz& Alon, 2001) and blind university students (Ghesquiere & Laurjssen, 1999) revealed that both groups had more difficulty understanding verbal text when it was read aloud or in Braille than when it was read in print. It seems that VI students lacked the visual cues necessary for reading comprehension and information processing. Students struggled to scan the text, understand the material as a whole, and retain key phrases or sentences even when they were using Braille or listening to recordings (Almog, 2011). Developing a sense of responsibility and satisfaction from the activities in the learning institution, as well as technical and useful knowledge like developing learning abilities, writing and summarizing, thinking and memorizing, ability to cope with mountains of reading material, being able to complete a given tasks, writing and organizing term papers, and effective time management, are all part of the core needs for academic support for visually impaired students (Gerdes &Malinckrodt, 1994; Zeidner, 1992). It takes VI students two to five times longer to learn the same amount of course material as their sighted peers. The duration grows as the disability gets worse (Ghesquiere & Laurjssen, 1999; Meister, 1998).

3.2.2. Integration into the social environment

The study findings as in the Table 1 also illustrate that the student faced the greatest difficulty in dealing with the socio-emotional aspects, due to the inability to visualize the anatomical details in human cadavers. Thus, the presence of a Support Teacher was fundamental to ensure that the student could learn the content and overcome this limitation (Mendonça, Souza, Arruda, Noll, &Guimarães, 2021). A key element of persistence and success in college is the ability to integrate socially in addition to academically (Firat, 2021). It was found that social milieu integration had a significant impact on an individual's commitment to the academic system (Rosenblum, et al., 2018). VI students need to graduate, feel accepted, and adjust to school settings in order to become socially integrated at par with the conventional students' counterparts (Asamoah, et al., 2018). For unconventional students just like those with VI, success is measured by their ability to fit in with society (Bean &Metzner, 1985). According to some research, one of the causes of college dropouts and failure to graduate among students with VI is a lack of social integration (Firat, 2021; Ostrowski, 2016).

As impaired vision students' contact with teachers and fellow students, autonomy and activism, leisure activities and social interactions, travel, orientation, and mobility skills are all aspects of

students' social interaction. Students who are visually impaired face various obstacles in the social and emotional sphere. Many social interaction skills are built on visual cues. Visual loss affects one's ability to recognize people or social situations (Amin, et al., 2021). It can be difficult to comprehend the other person's actions and emotions when there is a lack of visual cue, and occasionally mediation or interpretation is required (Ferreira, & Manis, 2022). A lack of interpersonal skills and a sense of social exclusion could arise from blindness (George & Duquette, 2006). Students with visual impairments are often subjected to unwelcoming and inappropriate behavior in the social setting. They have fewer interactions than their sighted counterparts (Ferreira, & Manis, 2022). Low self-esteem in visually impaired students manifests as apathy, dependence, or a reluctance to take initiative (Klingenberg, et al., 2019). High school students with VI may find it challenging to communicate with their sighted peers even when they are enrolled in the same regular class. Numerous individuals still endure social isolation, limited social connections, and inadequate social abilities (George &Duquette, 2006). Many VI children receive excessively protective treatment from their family, caregivers, and other support systems. They consequently fail to develop the social skills necessary to succeed in college (McBroom et al., 1991). Students with VI sometimes experience anxiety, guilt, and difficulty forming social interactions. They might feel uncomfortable asking for help, which could make it difficult for them to complete their academic work (Vancil, 1997). The review of related evidence that is displayed above compiles the investigations that have been done on university students with VI thus far. On the other hand, it is important to provide sufficient assistance and social integration for students who are visually impaired. This will allow them to actively participate in their education, at home, and throughout their career transition.

3.2.3. Need for Institutional Support Services for Students with Visual Impairments

As indicated in the Table 1, Mwakyeja, (2013) presents that general teachers have little knowledge about inclusive education and how it should be practiced not only for students with visual impairments but for all students with special needs. Thus, visually impaired students need to be taught in inclusive classrooms unless they have severe visual problems that necessitate additional accommodations and other tactics in order to meet their learning objectives (Omer, 2015). Students who are completely blind or whose vision is so poor that they cannot rely solely on their sense of sight to receive visual information are taught academic skills through the use of Braille. Some support framework that can be implemented by teachers may include supporting the students in focusing on hearing the material; arranging the classroom's seating to help visually impaired students avoid glare and overly bright or dim lighting; and use of contrasting colors for low vision students.

3.2.4. Need for Career Transition Intervention support

In a focus group discussion, Crudden, (2019) examined rehabilitation providers' beliefs about services and strategies for successful facilitation of transition from school to employment. Outcomes generated include, regular transition services before age 16, collaboration between service providers and families, early assessment, and the development of specific skills are factors that can facilitate career transition. Similar study be Eseadi (2023) showed that interventions for assisting students with visual impairments in the career transition process were classified part of the essential educational

interventions. Further, family participation interventions, work-based learning interventions, interagency and transition service intervention, career mentoring as an intervention, knowledge of career and job-searching ability as an intervention, and transition programs as intervention were also highlighted in Eseadi's work. This affirms the outcome of this study that students with VI who are in the university need career-transition intervention support for smooth career transition after their post-secondary school education.

3.2.5. Need for individualized education plan (IEP)

The need for IEPs for students with VI is highlighted by Kija and Mgumba, (2024) who found that students with visual impairments were faced by various barriers, including challenges in interaction with the physical and social environment; inadequate learning support services; and inaccessible information (see Table 1). The outcome of this study by Kija and Mgumba shows that a well-thoughtful IEP needs to be developed and implemented within the educational setting to successfully support and include students with vision problems. IEPs for VI students may involve building a cooperative team made up of classroom teachers, special education teachers, administrators, school psychologists, and parents. Such network of resources could help to jointly pin down the individual needs of each VI student and attend to it outside the general classroom practices This team will talk about the student's skill and ability levels, learning goals, recommended support services, and any strategies, adjustments, or specialized materials that the student may require (American Foundation for the Blind, 2005).

To guarantee that students with visual impairments fully participate in the learning process, it is imperative to include members of the learning team who are experts in the field of vision impairment education (American Foundation for the Blind, 2005). Recognizing that these students have very specific needs will make it easier to meet their needs, and this is an important part of inclusive education. Numerous studies indicate that students with visual impairments are not always included in the regular education program (Hatton, 2014; Ferreira, & Manis, 2022; Miyauchi, 2020). Many students have specific needs that the IEP needs to take into account, in addition to providing them with access to the core curriculum (American Foundation for the Blind, 2005; Kartika et al., 2018). Students with visual impairments cannot function well in an inclusive learning environment unless they receive instruction in an extended core curriculum that fulfills all of their needs (Hartley, 2010; Opie, 2020). Therefore, in addition to inclusive education, an individualized educational plan needs to be developed and put into action in order to provide visually impaired students with the support they need to adapt to regular school settings and be prepared for the demands of the workplace.

The findings of this study support the theory of transition described in this study. The 4S of Schlossberg's Transition Theory (Schlossberg, 1981) can give full explanation of the findings of the present study. For instance, in the framework of S1-situation lie conditions surrounding the transition of VI students, including the time, challenges and contexts that serve as the transition's anchor. Such can be defined by the whole lots of limitations and uncondusive learning environments. According to this theory, institutions can aid visually impaired students in assessing their current situation which includes the timing of the shift, control over the transition process, previous experience with

comparable transitions, and managing concurrent stresses. This brings to bare, the importance of attending to VI students' challenges found in this study such as inadequately trained teachers, ill-equipped schools to address the needs of these learners, financial challenges, public stigma, accessibility, peer-to-peer acceptance and difficulties in learning at the university. S2-Self includes personal features and psychological resources that define the individual in transition. The institution might help students with visual impairments learn their personal characteristics, such as gender, socioeconomic status. In the case of students with vision impairments, the institution may assist them build optimism, confidence, and resilience through Institutional Support Services for Students with Visual Impairments Integration into the social environment Individuals can receive social help during their transition such as Career Transition Intervention support; Academic/learning support and individualized education plan The institution can provide these through mentorship, career services, disability assistance, vocational rehabilitation programs, and institution-based initiatives. Strategies: Coping strategies and methods used to manage transition. Institutions can help students with visual impairments acquire coping mechanisms like framing, direct actions, information searching, and so on.

4. Practical Implications

Based on the outcomes of the review of literature the following practical implications were drawn to guide inclusive practices for students with VI in post-secondary institutions: access to physical accommodation; access to assistive technology/adaptive equipment; provision of psychological/counseling services; special library and information services. These implications can be built into a framework of action for institutional support for students with VI in schools as shown in Figure 2.

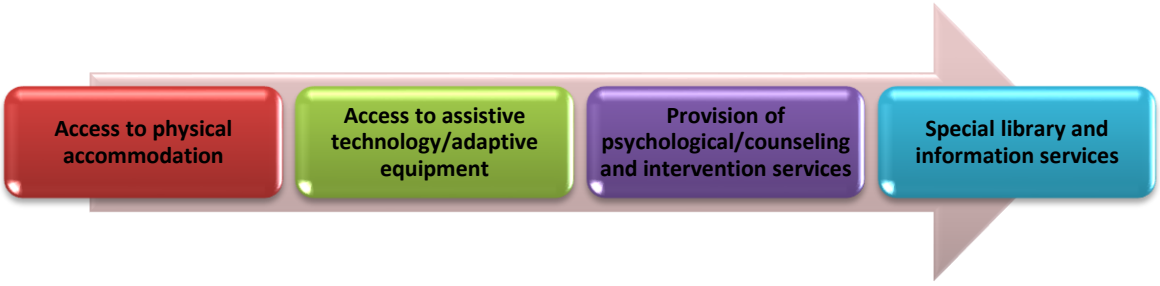

Figure 2: Framework of action for institutional support for students with VI in schools

4.1. Access to Inclusive Physical accommodation

The two dynamics of inclusive physical environment for students with VI is access to residential accommodation and access to mobility facilities. One of the most important aspects of institutional support for visually impaired students is the provision of appropriate accommodations (Nnama-Okechukwu, Chukwuka, & Okoye, 2020). According to a study involving visually impaired students, accommodations are a crucial kind of institutional support. The water supply, internet access, and restroom accessibility should be planned so that these students can use them easily (Nnama-

Okechukwu et al., 2020).The organization ought to think about providing students with visual impairments with transportation services. Mobility facilities should also be made available so that impaired students can independently visit a specific location and go about their daily activities without any difficulties. To pick up visually impaired students from each campus bus station, the administration must provide accessible buses or specially designed vans (Amin et al., 2021).

4.2. Access to assistive technology/adaptive equipment

As with healthcare and education, access to assistive technology is considered a human right for disabled people, including those who are visually impaired (United Nations [UN], 2006; National Council on Disability (NCD), 2016; World Health Organization [WHO], 2015).As per the UN convention's Article 9, the availability of ICT enhances social barriers in society and facilitates access to education, employment, and independence (UN, 2006). Governments need to budget for AT at the top of the list because without it, people with disabilities—including visually impaired students—would find it difficult to reach their full potential and make a positive contribution to society at work. This implies that AT enhances the way in which individuals with disabilities can exercise several human rights, such as the right to employment, education, and health care.

Students who are visually impaired may not always have the same experience as their sighted peers because of unclear or negative perceptions about their disability. Students' capacity to learn may be hampered by their inability to obtain adaptive technology, such as screen readers, audio recorders, mobility scooters, adjustable seats, and specialized software (Mullins &Preyde, 2013; Myers & Bastian, 2010). Through increased accessibility to electronic resources and tests, increased dependability of student work, increased career options, and a reduction in over-reliance on others, assistive technologies help visually impaired students (Argyropoulos & Thymakis, 2014; Douglas et al., 2011; Kisanga, 2019; Kisanga & Kisanga, 2020; Silman et al., 2017). Furthermore, assistive technology guides the professional and social trajectories of individuals with vision impairment while also helping them manage their academic responsibilities. This is because, according to the American Foundation for the Blind [AFB], 2016, AT may enable students who have visual impairments to complete tasks more quickly, easily, and independently. The provision of AT specialists and technical personnel to instruct visually impaired students in the use of the tools is an essential component of institutional support. Students with impairments should also have access to all forms of adaptive and assistive technology at a discounted cost through the institution. This is to make it possible for students in this category to afford the tools and learn how to use them to the fullest extent possible in the classroom and to succeed in the workplace.

4.3 Provision of psychological/counseling services

For visually impaired students to be able to cope with their disability, psychological services, or psychotherapy, may be necessary. While counseling is an essential service that all students receive, students with visual impairments gain the most from it (Robertson, 2022). There is evidence that visually impaired students, among other disabled students, are more likely to encounter various forms of harassment (Westcott & Jones, 1999). For this reason, appropriate psychological follow-up is necessary. In order to maintain and improve their psychological health, all impaired students at any

institution should also receive ongoing psychological and counseling support. All parties involved, especially the administration of the university, must play an active and strategic role in ensuring that impaired students receive sufficient counseling services in order to help them succeed in their studies (Amin et al., 2021). The counselling services should also include career development and transition services. Planning ahead of transitions is crucial as these students can utilize the knowledge garnered to excel in their future career pursuit.

4.4 Special library and information services

The information needs of visually impaired students are identical to those of their sighted peers. People who are blind or visually impaired students want to have access to important knowledge in their preferred easily understandable form, just as sighted people can read news articles on papers, listen to records, or access e-materials from the Internet. It is imperative that institutional libraries include a section that efficiently stores and compiles necessary information in a way that is accessible to visually impaired students. Regardless of a user's physical disability, libraries ought to provide access to informational resources. Libraries and information gathering places all over the world have developed specialized information services to cater to their visually impaired patrons (Rayini, 2001). Among other things, these services include braille, talking books, and talking newspapers. With the Braille reading and writing system, letters are shown as raised dots that can be felt to read. Braille books are appropriate for readers who are hard of seeing or hearing. Talking books are audiobooks that can be recorded on a CD-ROM, DVD, or cassette or downloaded over the internet. Most individuals with visual impairments select talking books. Talking newspapers are audio versions of the news articles found in daily newspapers. Documents designed for use by visually impaired students that have large print. A visually impaired person can use a screen reader to have a computer read an electronic text aloud, print it out in large type, read it from paper, use an associated Braille display, or load an electronic text into their computer and read it using screen magnification software. Additionally, libraries can increase the accessibility of information for students with visual impairments by utilizing ICT-based resources like assistive or adaptive technologies (Rayini, 2001).

5. Conclusion

Based on the findings of the current study, I conclude that institutional supports are needful for smooth career transition of students with visual impairments in post-secondary schools. Educational setting is crucial in helping students who are visually impaired, and to reduce difficulties in their daily lives on campus, VI students' institutions must take into account their current needs and be able to offer support services that meet those needs. The media should be heavily involved in raising awareness of the issues and challenges these students face, especially with regard to their educational needs. In order to increase these students' rates of program engagement and graduation, and enable them to overcome the learning obstacles posed by their disabilities, the higher education institutions need to offer these students more effective support. This will improve course completion rate and their ability to successfully transition into good careers and improve their overall quality of life.

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Conflict of Interest

The author declare no conflict of interest.

Author Contributions

CNO conceived and designed the study. CNO also collated and analysed the data, wrote and revised the manuscript versions. CNO approved the final draft.

Data Availability Statement

The data generated for this research can be accessed in the article. Further inquiries can be directed to the author.

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