

Critical Review: Encouraging positive employment outcomes for individuals who use AAC, through barrier and support identification.

Candice Boyd

M.Cl.Sc (SLP) Candidate

University of Western Ontario: School of Communication Sciences and Disorders

This critical literature review examines the factors that impact employment outcomes for individuals who rely on augmentative and alternative communication devices and strategies (AAC) to communicate. Five qualitative studies were reviewed, including three questionnaire studies and two focus group studies. Barriers to employment and facilitating factors were identified in the studies by individuals who use AAC, as well as by employers and coworkers. The most common barriers identified include: communication, accessibility, qualifications, specific work related training, and financial issues. The most common supports identified include communication support and general workplace, family, government and professional support. Speech-language pathologists can facilitate positive employment outcomes for individuals who use AAC by enhancing workplace communication, as well as by advocating for and encouraging early vocational skill development and necessary technological advancements.

Introduction

Individuals with disabilities face many disadvantages

some of the pervasive disadvantages, the National Organization on Disability has conducted surveys which document trends for individuals with disabilities (Harris Survey of Americans with Disabilities, 2004). The most recent study only 35% of people with disabilities reported being employed full or part time, compared Harris Survey of Americans with Disabilities, 2004). This statistic suggests that individuals with disabilities are underrepresented in the labour market; however, only 17% of the individuals surveyed used devices designed to assist with spoken communication (Harris Survey of Americans with Disabilities, 2004).

There is limited research detailing the employment rates of individuals who rely on alternative and augmentative communication devices and strategies (AAC) in order to communicate. However, existing research has shown that employment rates for these individuals may be much lower than for individuals who have disabilities but do not require AAC. For example, Blackstone (1993) estimated that the rate of employment for individuals who use AAC is at best 15%.

When considering that 63% of individuals with disabilities would prefer to be working, the low rate of employment for individuals who use AAC is of significant concern (Harris Survey of Americans with Disabilities, 2004). This concern is further

International Classification of Functioning, Disability and Health (ICF) model as it includes employment as an important factor in life participation (WHO, 2001). Successful employment is widely noted to be

crucial for achieving financial independence, facilitating social interaction, creating a sense of purpose, fostering positive self esteem and generally improving overall quality of life (Blackorby & Wagner, 1996; Light, Stoltz & McNaughton, 1996; McNaughton, Light & Gulla, 2003).

The value of successful employment and the desire of individuals who use AAC to be employed is clear. Therefore, it is necessary for speech language pathologists who work closely with these individuals to acquire evidence-based knowledge of the factors contributing to low employment rates, as well as the supports necessary to facilitate positive employment outcomes.

Objectives

The primary objective of this paper is to evaluate existing literature examining the employment barriers that face individuals who use AAC, and the supports necessary to overcome these barriers. From this evaluation of the literature, a summary of barriers and facilitators will be developed from the perspective of individuals who use AAC, as well as employers and coworkers. The secondary objective is to provide recommendations for speech-language pathologists in order to facilitate positive employment outcomes for individuals who use AAC.

Methods

Search Strategy:

Computerized databases including Proquest, ScholarsPortal, PubMed, PsychINFO, CINAHL, Scopus, Web of Science and Google Scholar were searched using the following search strategy:

[(AAC) OR (alternative communication) OR (augmentative communication) OR (augmentative and alternative communication)] AND [(employment) OR (jobs)] AND [(barriers) OR

(challenges)] AND [(facilitators) OR (supports)]. Reference lists of previously searched articles were also used to obtain other relevant studies.

Selection Criteria:

Studies included in this critical review paper were required to have examined the barriers and supports to employment for individuals who use AAC, from the perspective of the individual, employer or coworker. No limits were set on the dates of the articles, demographics of research participants or study designs.

Data Collection:

Results of the literature search yielded five qualitative research studies that met the above selection criteria. These included three questionnaire studies and two qualitative studies using focus group methodology.

Results

Although qualitative research (Evidence Level 3) may be considered a lower level of evidence, it is an appropriate approach to use when investigating the experiences and opinions of research participants. While the studies reviewed are beneficial to consider when investigating perspectives on the employment situation for individuals who use AAC, all of the studies presented with some common limitations. Firstly, none of the authors presented their research in an explicit theoretical frame (e.g., phenomenology). This is problematic as it is difficult to know what perspective is taken for interpreting the data and results. Secondly, none of the researchers acknowledged any potential biases that may have influenced their understanding and interpretation of the data collected. Finally, all of the sampling frames are small and unrepresentative. However, acquiring a representative sample of individuals who use AAC is challenging as the population itself is small and diverse. Given these common limitations and the various limitations of each individual study, the results must be interpreted with ca

be considered when interpreting the results. Firstly, while an open-ended questionnaire was an appropriate method to use, a focus group or interview would have encouraged respondents to provide more in depth information. This is especially true for those participants who were limited to the space provided on the mailed questionnaires. Secondly, the questionnaire is described briefly but is not included for review. Weak claims for the validity and reliability of the survey are made, and it was piloted

computer-based AAC systems to communicate with varied access techniques.

The questionnaire was developed based on a literature review as well as from input from individuals who use AAC (both employed and unemployed), professionals in the AAC field, and vocational counsellors. A statistical consultant reviewed the questionnaire to verify that it was psychometrically sound. The questionnaire is available for review in the article, and the questions appear appropriate for the study. Participants received the questionnaire by mail, along with instructions for administration. Responses were appropriately analyzed through operational definitions and thematic coding, followed by an establishment of inter-rater agreement.

Results of this study highlight many barriers that individuals who use AAC face in the employment situation. While 54% of the successfully employed participants did not have a high school diploma and 52% reported being only functionally literate, it appears that low education and literacy levels are not necessarily a major barrier to attaining employment. However, participants suggested that low education and literacy levels did present a barrier to advancement opportunities. Half of the respondents stated that school did not prepare them for their job and felt that they had limited training in the following areas: marketable skills, interpersonal skills, work ethic (punctuality, effort, commitment), and general employment skills (negotiating transport, paying taxes). Specific barriers reported include: communication difficulties (frequent communication breakdown, difficulty participating due to slow rate of communication, and lack of access to work-related vocabulary), assistive technology (recurrent breakdowns and funding limitations), colleague interactions/social attitudes and transportation (unreliable, inaccessible and unavailable public transit). Supports to these barriers included: multimodal communication, appropriate work-related vocabulary, acceleration techniques, more reliable technology, increased funding support, more efficient access methods, increased interpersonal skills, and reliance on private transportation and family. Partner instruction is suggested for supervisors and coworkers to assist in successful communication.

It is necessary to consider these results in light of the

obtain a representative sample, the majority of the respondents (76%) had cerebral palsy and individuals with degenerative neurological disorders were not included in this study. Furthermore, this study investigated the perspectives of successfully

employed individuals. Insight from individuals who are not successfully employed is necessary to achieve a full picture of the barriers that exist.

The use of a questionnaire is also problematic as individuals who use AAC may have had difficulty responding due to language, literacy and physical limitations. A focus group or interview may have been a more appropriate method. Finally, since this study was published in 1996, some of the pertinent issues may have changed due to technological advancements, government policy changes and increased public awareness.

Focus group studies:

McNaughton, Light and Groszyk (2001) and McNaughton, Light and Arnold (2002) conducted two similar focus group studies on two different populations of individuals who use AAC. The two focus groups were conducted online, which was appropriate for these studies as it allowed participants to contribute to the discussion at their own pace, without the need for travelling. Responses to the focus group questions were appropriately analyzed by unitizing the data and then thematically coding it using operational definitions. A reliability check was completed, and a summary of the results was confirmed by the participants. While the procedures were similar for both studies, participants and results varied.

McNaughton et al. (2001) investigated the barriers faced and supports required by individuals who require AAC due to amyotrophic lateral sclerosis (ALS). Participants included three women and two men, ages 50 to 57 years. All of the individuals reported successful employment experiences while using AAC devices. They represented a range of demographics, employment activities, education levels and AAC devices.

The barriers reported by the participants included: Architectural (lacking workplace accommodations), technological (cost, learning demands and limitations of assistive technology), negative attitudes (towards ALS and terminal illness), policy/funding (lack of enforcement of government policies, lack of funding), financial (decreased pay due to decreased responsibilities, reduction in disability payments due to salary), limited availability of information and services (limited service providers, lack of expertise regarding AAC devices), psychosocial adjustment (difficulty accepting diagnosis and asking for help, physical manifestations of degenerative disease). Limited availability of information and services was noted as particularly problematic as participants reported that many people diagnosed with ALS are not aware that AAC services are available.

