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Attitude and key word signing usage in support staff

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ABSTRACT

Background: Support staff may diverge in their use of augmentative and alternative communication (AAC) and key word signing (KWS). AAC use is determined by multiple personal and environmental factors. In this study, the relation between KWS attitudes and usage was examined in support staff.

Method: Twelve adults with an intellectual disability who use KWS were each filmed during a dyadic interaction with two professionals from their service: one had received first-hand (1HT) and the other second-hand KWS training (2HT). Each communication partner participated with only one client. The professionals' sign usage was coded, and their attitude towards KWS was measured using a survey and single-category Implicit Association Test (IAT).

Results: 1HT produced more signed utterances and distinct signs than 2HT, and this increase had a positive, linear relation to IAT scores. Explicit attitude did not correlate with KWS usage, but did significantly correlate with the discrepancy between intention and KWS usage.

Conclusion: The train-the-trainer system may not reach its full potential as 2HT knew fewer distinct signs and consequently produced fewer signed utterances than 1HT. In contrast to implicit attitude, no relation was found between explicit attitude and KWS usage. Though the survey may provide valuable information, it may not fully capture the complex influences that shape AAC usage.

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What this paper adds

In various qualitative studies, researchers found that individuals' attitude towards AAC may impede or facilitate AAC implementation. In the field of AAC, this relation has not yet been empirically studied. Also, AAC researchers have primarily focused on aided strategies even though research has indicated that key word signing (KWS) may be used frequently in services for individuals with an intellectual disability. To answer to these research needs, the relation between KWS attitudes and usage was examined in support staff by combining explicit and implicit attitude measurements with conversation

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analysis. The present results were in line with findings from explorative studies. Furthermore, results suggested that evaluation of AAC implementation in a clinical setting requires a more in-depth approach than conducting a survey.

1. Introduction

Without communication support, individuals who experience communication difficulties can become dependent on others. Augmentative and alternative communication (AAC) strategies may support communication and consequently enhance these individuals' self-determination and quality of life (Hamm & Mirenda, 2006). Individuals who use these strategies employ their body (unaided AAC) or external means (aided AAC) to enhance or replace speech. This study concerns key word signing (KWS), an unaided AAC strategy that involves simultaneously signing key words during speech.

AAC use involves multiple stakeholders: clients (individuals with a disability), family, friends, and support staff (Beukelman & Mirenda, 2013; Schlosser, 1999). The AAC skills, knowledge, and attitudes of each stakeholder can affect AAC implementation. Clients and support staff who use AAC reported that staff attitudes can facilitate or impede AAC use (Calculator, 1999; Johnson, Inglebret, Jones, & Ray, 2006; Lund & Light, 2007b). The relation between AAC attitudes or beliefs and AAC use is not straightforward as it is shaped by a complex interrelation of various personal and environmental factors (Calculator, 1999; Johnson et al., 2006; Rombouts, Maes, & Zink, 2015; Smith & Connolly, 2008; Trembath, Iacono, Lyon, West, & Johnson, 2014).

Researchers studying the relation between environmental factors and AAC implementation have traditionally utilised qualitative research methods (Calculator, 1999; Johnson et al., 2006; Lund & Light, 2007b; McCall, Markova, Murphy, Moodie, & Collins, 1997; Murphy, Markova, Collins, & Moodie, 1996; Smith & Connolly, 2008; Torrison, Jung, Baker, Beliveau, & Cook, 2007; Trembath et al., 2014). Presently, this relation has not been empirically studied. Therefore, we examined the connection between attitude and KWS use in staff by combining attitude measurements with conversation analysis. Because AAC researchers have primarily focused on aided AAC and a research study indicated that KWS may be used extensively in services for adult clients (Meuris, Maes, & Zink, 2014), we examined KWS application.

1.1. AAC usage in support staff

Support staff may find it challenging to use AAC consistently (Chadwick & Jolliffe, 2009; Johnson et al., 2006; Rombouts et al., 2015; Trembath et al., 2014). The extent to which they use AAC can vary considerably (Meuris, Maes, & Zink, 2015; Trembath et al., 2014); for example, Meuris et al. (2015) observed that trained staff produced 0–38 signed utterances during a 5-min staff-client conversation. These authors suggested that this large range is indicative of diverging views on KWS.

A number of researchers have found that staff skills and beliefs can affect their AAC use. Staff are more inclined to consistently apply a communication strategy if they have received sufficient training (Calculator, 1999; Johnson et al., 2006; Lund & Light, 2007b), if they believe the strategy facilitates communication (Johnson et al., 2006; Stans, Dalemans, de Witte, & Beurskens, 2013), or if they understand its impact on a particular client (Bradshaw & Goldbart, 2013; Graves, 2007; Purcell, McConkey, & Morris, 2000). In contrast, staff who reluctantly use AAC may think: (a) that it is embarrassing (Meuris et al., 2015), (b) that the strategy is not adapted to the clients' needs (Johnson et al., 2006; Meuris et al., 2015; Trembath et al., 2014), (c) that it may have negative consequences such as stigmatisation (Lund & Light, 2007b), (d) that their colleagues do not support AAC, or (e) that they do not have sufficient time or AAC skills (Murphy et al., 1996; Torrison et al., 2007).

1.2. Relation between attitude and behaviour

The attitude-behaviour relation has been studied extensively in social psychology. Fishbein and Ajzen (1975) developed the theory of reasoned action, a seminal behavioural model that maps the progression from beliefs to actions. According to its most recent adaptation, the reasoned action approach, correlations between individuals' background, attitudes, social norms, and (perceived) behavioural control shape intention and behaviour (Fishbein & Ajzen, 2010). All these factors can influence AAC use, which renders the relation between certain beliefs and AAC use complex. For example, staff who believe in the benefits of AAC may nevertheless find it difficult to consistently use the strategy (Rombouts et al., 2015). In an interview study, the reasoned action approach was found to be a useful framework for explicating AAC use in support staff (Rombouts et al., 2015). Consequently, the reasoned action approach and its related models may be a sound starting point for measuring attitudes towards AAC.

An indirect offspring of Fishbein and Ajzen's work, the unified theory of acceptance of assistive technology (UTAUT; Venkatesh, Morris, Davis, & Davis, 2003; Venkatesh, Thong, & Xu, 2012), centres on the use of technology and may consequently bear a closer relation to AAC use. This model includes: performance expectancy, effort expectancy, social influence, enjoyment, facilitating conditions, and behavioural intent. The first two factors seem to carry the largest weight in shaping behaviour (Davis, Bagozzi, & Warshaw, 1989; Nam, Bahn, & Lee, 2013), but the weight of each factor remains contingent upon the behaviour under investigation (Ajzen & Fishbein, 2005). AAC researchers have not yet applied this model. Considering that a factor's contribution weight may depend on the target behaviour (Ajzen & Fishbein, 2005), we only include studies here that concern professionals' acceptance of assistive technology.

Liu et al. (2015) in a study on occupational therapists' intention to use technology found that these professionals had a stronger intention to use technology when they believed the technology would be useful and effective (performance