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Communication among nurses and adults with severe and profound intellectual disabilities

Predicted and observed strategies

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Abstract This study explored communication strategies adopted by staff nurses in a residential centre in Ireland for persons with severe and profound intellectual disabilities. Interactions between staff nurses and service users were video recorded and analysed to determine the frequencies of verbal and non-verbal communication acts. Semi-structured and focus group interviews were carried out with the 10 participating staff nurses. Participants identified staff-related factors, the communicative environment, alternative methods of communication and choice as key elements in communicating with service users. No differences were observed in the frequency of verbal and non-verbal communicative acts. There was a discrepancy between what communicative acts the participants named as their preferred strategies and those observed when they interacted with service users. Most failed to adjust their language to meet service users' needs. The findings suggest that staff nurses do not always adopt optimal strategies in everyday interactions with individuals who use non-verbal communication. Continuing education in communication is recommended.

Keywords communication strategies; nurse education; severe or profound intellectual disabilities

Introduction

Interpersonal relations form a core element in current models of quality of life for people with intellectual disabilities (Schalock et al., 2002). While it may be assumed that the basic domains of quality of life – social wellbeing,

for example – extend to those with severe, profound and multiple disabilities, these individuals comprise a group with distinctive needs for support in achieving positive outcomes. Evidence suggests that individuals who are less able receive less support from staff – in making choices, for example – illustrating the *inverse care law* (Hatton et al., 2004, p. 111). In addition, the content of quality of life domains may differ for individuals in this group as they typically depend on others to meet their needs and thus help to enhance their quality of life (Petry et al., 2004). Those authors also found that nearly all respondents in their exploratory study identified good communication as a crucial subdomain, concluding that 'parents and direct support staff felt that it was extremely important for these people that their communicative behaviour was observed, interpreted and answered adequately' (2004, p. 41).

Good communication may be a valued outcome for individuals with severe or profound levels of intellectual disability. However, in practice staff may underestimate their own use of verbal communication and overestimate their use of non-verbal communication and may fail to adapt their communication to fall within the understanding skills of the service user (Bradshaw, 2001). Hearing loss is prevalent among individuals with intellectual disabilities but often unrecognized (Haveman, 2004) and its presence may exacerbate communication difficulties. Staff members may not comprehend residents' needs, and indeed over time, may cease trying to do so. There may often be striking variations between staff members in how they interpret behaviours of intellectually disabled clients and therefore some individuals are likely to receive inconsistent responses when they attempt to communicate (Ware, 1997). Staff when interacting with children with severe intellectual disability were significantly more likely not to maintain children's interaction attempts than to maintain them (Beveridge and Hurrell, 1979). Gaps in knowledge persist about what staff members believe is important in communicating with people with severe and profound disabilities whom they support and how they actually do so. The workload of care staff and their perceptions of their role in providing supports might mitigate against building equal relationships with clients and nurturing genuine communication (Felce and Perry, 1995). Greater knowledge about the strategies adopted by professional support staff when they interact with individuals who have severe and profound disabilities is a crucial step in building professional competence and promoting an enhanced quality of life for this population.

In Ireland, the main forms of residential support for adults with intellectual disabilities who live outside the family home are community-based group homes and large campus-style residences: individuals with a moderate, severe or profound level of intellectual disability are more likely

to live in the latter. In 2004, 46.3 percent of individuals in this group were living in residential centres (Health Research Board, 2004, p. 37). Traditionally, nurses with specialist training form the mainstay of professional staff supporting residents in these centres, often located in rural regions and managed by religious or other voluntary bodies (Walsh et al., 2004).

The aim of this study was to explore communication strategies among staff nurses supporting individuals in residential centres who have severe and profound intellectual disabilities and use non-verbal methods of communication. Specifically, there were three research questions: (1) 'What do staff members identify as being important when communicating with service users who do not use verbal communication?'; (2) 'Do staff nurses use more verbal or non-verbal communication acts?'; and (3) 'Do staff nurses accurately predict the skills used in making adjustments to meet service users' communicative needs?'

Methodology

A triangulated approach was employed to gather data to address the research questions. These included direct video recorded observation of staff–service user interactions, and both individual and focus group interviews with members of staff. All data were gathered in a single campus-style residence providing full-time residential services for people with intellectual disabilities in the western region of Ireland.

Participants

A purposive sample of 10 staff nurses agreed to take part in this study. The staff participants ranged in age from 20 to 37 years, and had worked with the service users for between 4 months and 2 years. About one-third of staff had received in-service training in the area of communication since their initial professional training programme.

To form communication dyads, each participating member of staff was invited to name a service user whom they knew well. The 10 service users communicated non-verbally and functioned within the severe and profound ranges of intellectual disability: nine were female and one was male, ranging in age from 26 to 47 years. Two individuals had a visual impairment and two a hearing deficit.

Data collection

Data were gathered using three instruments.

Video recordings Social interactions between staff members and service users were recorded using a video camcorder so that content could be

analysed to determine the frequencies of eight verbal and seven non-verbal communication acts, using a method described by McConkey et al. (1999) (Appendix 1).

Individual interviews Individual interviews were carried out with the 10 participating members of staff using a topic guide (Appendix 2). The purpose was to explore their perspectives on the importance of communication when interacting with people with severe to profound intellectual disabilities and no verbal language. Each interview lasted on average 30–40 minutes. The first author invited a colleague who was not involved in the study but who was familiar with the process of category generalization to read and review three transcripts to validate the organization and relationships of the derived categories and themes (Burnard, 1991). Both the first author and her colleague agreed on the categories and themes derived from the interviews.

Focus group interviews Finally, focus group interviews were carried out using a topic guide (Appendix 3) to validate data previously collected in the individual interviews. The focus group interviews lasted approximately 25–30 minutes and five staff members took part in each group.

Procedures

The staff nurses consulted with service users to select a social activity of their choice for the video interactions. The activities represented what was likely to take place in everyday practice: foot massage, beauty therapy, manicures, jigsaw puzzles, looking at photographs, social chats and singalong sessions. Participants were informed that they would be video recorded using a portable camcorder for 10 minutes while they were engaging in their chosen social activity. No instructions were given to any participants other than to interact as normally as possible in their selected activity. Each staff–service user interaction was recorded once only in a quiet environment for 10 minutes. Observational data were gathered first, in order to minimize the chance that participants might behave differently in light of suggestions made during interviews.

In one session, for example, the staff nurse sat the service user in a comfortable chair and asked her if she would like her feet massaged. The staff nurse sat opposite the service user and showed her the bottle of cream and towel. The service user lifted her foot and placed it on the staff nurse's knee. The staff member removed her shoe and sock and began to massage the service user's foot.

Validity/reliability

Each communication act was defined and then verbal and non-verbal communication acts were calculated for a sample of five out of the 10 video recordings of staff-nurse/service-user interactions. Inter-rater reliability of the video interactions was established by computing the percentage agreement by the first author and a researcher at the Centre for Disability Studies, UCD: the overall agreement reached was 90 percent. Agreement was lowest on gestures (60%) and highest on questions, instructions, looking and touch (100%).

Ethical considerations

Approval to proceed with the study was given by the local ethics committee and the director of nursing of the intellectual disability service after an explanation of the measures used to ensure that the research was ethically sound. An invitation letter about the purpose and nature of the study was sent to 10 staff nurses and to 10 service users' guardians. Consent was obtained from the 10 staff nurses and the 10 service users' guardians. The content of the letter was simplified and explained to the service user participants before each video recording session and permission was sought from participants to tape record the interviews to allow all information to be captured. In addition, service users' guardians supplied written agreements for video recordings.

Data analysis

Observational data were analysed using SPSS Version 8 (Norusis, 1998). The data from the semi-structured and focus group interviews were analysed using the principles of thematic content analysis described by Burnard (1991).

Results

The results are presented in three sections corresponding to the three main research questions.

Communication strategies

The results of the semi-structured and focus group interviews addressed the first research question: 'What do staff members identify as being important when communicating with service users who do not use verbal communication?'

Four key themes were derived from analysis of the content of individual interviews: issues relating to staff, perceptions of the communicative

environment, alternative methods of communication and individual choice. Samples of participants' comments appear in Table 1.

Staff issues All but one participant stressed the importance of knowing the service users, and of consistency in staffing: five noted constraints on time due to other tasks and a high client-to-staff ratio.

Communicative environment Five respondents said that they approached the service user the same way as one would talk to anybody else, and would communicate with both verbal and non-verbal individuals in the same way. Seven appraised the physical properties of the environment negatively, citing 'open corridors', 'crowded' conditions and 'lack of privacy'.

Alternative methods Many participants suggested that alternative methods – such as *LÁMH* (a widely used gestural system devised for people with intellectual disabilities in Ireland), picture books, communication boards and objects – might be used in addition to verbal means of

Table 1 **Samples of participants' comments**

Theme	*Sample content*
Staff issues	I think each person is an individual so assess them as an individual
	Consider the person's level of understanding and communication – you will be familiar with this if you work with the person
	There may not be enough time to communicate some days due to low staff ratio and a high number of clients
Communicative environment	It's not that different – you talk to them the same as I talk to anyone else
	Space is limited so it's difficult to get one-to-one attention
	There is a lot of noise, people and disruption each day
Alternative methods	I use picture boards, family albums, communication boards
	Everything you do in everyday life, i.e. touch, body language
	You would make adjustments for somebody who is visually/hearing impaired
Individual choice	You have to give choices – just because you [staff members] think it's right does not make it always right
	The client will usually choose the best method of communication themselves

communication, while a few suggested that communication aids are used to suit the service user.

Individual choice A few respondents commented that service users in residential centres experience restricted opportunities to make choices.

Most themes that emerged from the focus group interviews mirrored those identified in the semi-structured individual interviews. In addition, all participants stated that education and training would enhance both their communication skills and service users' quality of life, as indicated in comments such as the following:

> We would provide a better service for our clients and we would have better communication skills.

> The speech and language therapist should be involved in education.

Staff interactions with service users

Data gathered through video recordings were analysed to address the second research question: 'Do staff nurses use more verbal or non-verbal communication acts?'

Means and standard deviations of occurrence for 15 communication acts, both verbal and non-verbal, were determined (Tables 2 and 3). The Friedman Test for analysis of variance across mean scores yielded a significant difference among non-verbal acts, with 'looking' the most frequently observed act and 'posture' the least ($C2 = 34.458$, 6, $p < 0.05$) (Figure 1). In addition a significant difference was found when verbal acts were ranked ($C2 = 48.471$, 7, $p < 0.05$), with 'questions' and 'comment' occurring most often, and 'opinion' the least (Figure 2).

Table 2 **Mean and standard deviation of occurrence for non-verbal communication acts**

Non-verbal	*Gestures*	*Looking*	*Touch*	*Pointing*	*Posture*	*Facial expressions*	*Head nods*
Mean	9.4000	36.7000	12.7000	11.0000	3.2000	10.5000	6.1000
SD	6.8993	14.4457	6.9610	19.6299	2.0440	6.8354	7.2946

Table 3 **Mean and standard deviation of occurrence for verbal communication acts**

Verbal	*Talk*	*Questions*	*Instruction*	*Corrections*	*Opinions*	*Comments*	*Reinforce*	*Suggestion*
Mean	4.3000	23.2000	14.2000	1.3000	0.8000	18.3000	18.8000	2.9000
SD	6.0928	15.9360	11.1933	1.8886	1.8738	8.7819	23.6728	2.1318

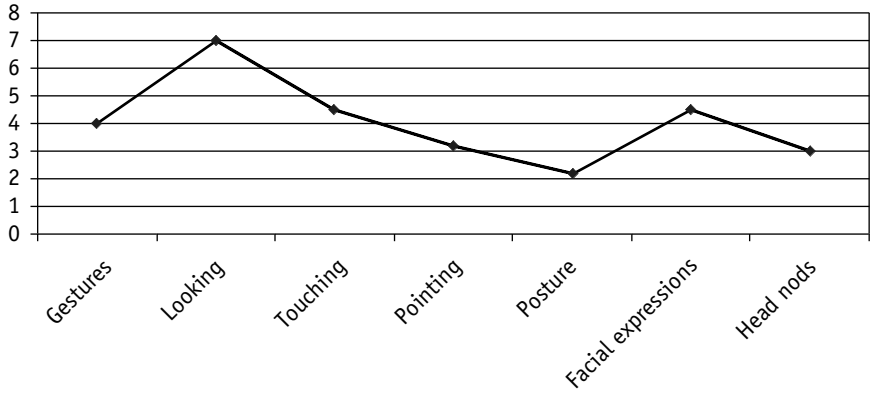

Figure 1 **Mean ranks of the seven non-verbal communication acts**

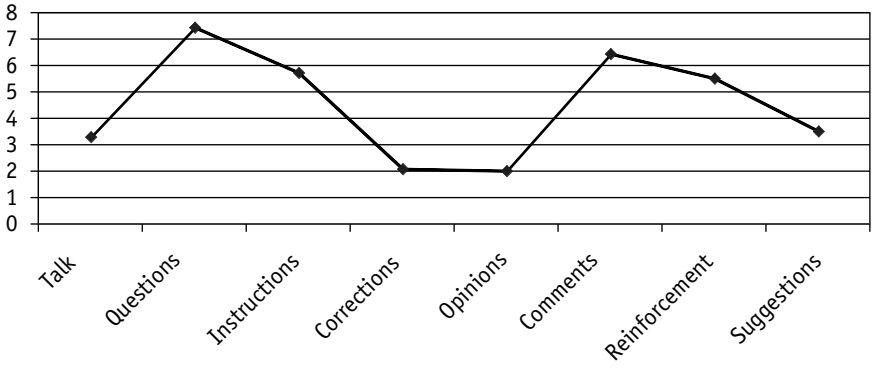

Figure 2 **Mean ranks of the eight verbal communication acts**

Mean frequency of verbal acts observed was 10.47 (SD = 6.26) compared with 12.8 non-verbal acts (SD = 5.86): this difference was not significant (Wilcoxon signed ranks test, $Z = -1.478$, $p > 0.05$).

Staff predictions

Finally, data from interviews were compared with observed interactions to address the third research question: 'Do staff nurses accurately predict the skills used in making adjustments to meet service users' communicative needs?'

First, participants' preferred methods were compared to the actual communication acts that staff nurses engaged in during the staff–service

user interactions. It was apparent (Tables 4 and 5) that staff nurse participants were far more likely to apply verbal or non-verbal strategies during interactive sessions with service users than to name these strategies as preferred. For example, 'question' was the most frequently observed verbal communication act (N = 232 observations): all participants applied this strategy, although just one had named it as preferred (Table 4). Nine of the participants were observed to adjust their posture and yet no one had named this as a preferred strategy (Table 5). In comparison eight of the participants named touch as their preferred strategy and interestingly all participants applied this strategy. For example, one participant indicated in the interviews that he/she used touch frequently, and when observed the participant held out a hand and the service user put her hand on top of the participant's and smiled.

Table 4 **Frequency of verbal communication strategies observed with numbers of staff participants who applied and who named strategies as preferred**

Verbal communication act	*Frequency of observations*	*Number of participants observed to apply strategies*	*Number of participants naming strategy as preferred*
Questions	232	10	1
Reinforcement	183	9	3
Comments	188	10	0
Instructions	142	10	1
Talk	42	8	5
Suggestions	29	9	0
Corrections	11	4	0
Opinions	8	3	0

Table 5 **Frequency of non-verbal communication strategies observed with numbers of staff participants who applied and who named strategies as preferred**

Non-verbal communication act	*Frequency of observations*	*Number of participants observed to apply strategies*	*Number of participants naming strategy as preferred*
Looking	367	10	5
Touching	127	10	8
Pointing	95	7	1
Facial expressions	110	10	3
Gesture	105	10	4
Head nods	61	7	0
Posture	32	9	0

Next, staff nurses' predictions as to how they would adjust their language to meet service users' needs were compared to how they actually did so during the observed interactions with service users. Three of the 10 participants felt that adjusting their tone of voice was important, yet just two of these participants adjusted their tone during the interaction. Three acknowledged 'changing their position'.

It was apparent that most participants failed to adjust their language by speaking slower, repeating and rephrasing sentences. Some used complex language and long sentences that were not likely to fall within the comprehension of the service users. One staff nurse persisted in asking the service user questions without providing any time for answers.

Summary

Staff nurses appraised assessment and being familiar with service users in order to meet individual needs and provide choices as important. Negative features of the environment were a lack of privacy and noise levels. Staff nurses reported that experience was vital in enhancing their competence in communicating with service users, and suggested that education and training would improve their communication skills as well as residents' quality of life. They were observed to use similar amounts of verbal and non-verbal communication acts during their interactions with service users. Although they had indicated that they should adjust their language to meet service users' needs, staff nurses often used communication such as complex language and continuous questioning which were likely to be outside the service users' understanding.

Discussion

In this study, nurses identified four sets of factors conducive to good communication with adults who have intensive support needs.

Many participants highlighted, first, the importance of 'knowing the client' in order to communicate effectively: thus assessment is an essential first step. According to Jones et al. (2002) regular assessment of the service users' progress is needed to detect any gradual changes. Sensory impairment is recognized as a source of concern and an area of significance to practitioners (Evenhuis et al., 1997; Woodhouse et al., 1996; Yeates, 1995). Nurses surveyed in the present study thus echoed recommendations identified elsewhere (van der Gaag, 1998) for appropriate screening of people with severe or profound learning disabilities, particularly so that staff may adjust their style of communication accordingly.

Second, participants often relied on verbal communication, apparently failing to adjust their language to meet service users' needs (McConkey

et al., 1999). It was striking that participants in this study said they would interact with verbal and non-verbal service users in the same way: Bradshaw reported that staff members communicate with the person with intellectual disability in the same way 'as you would talk to anybody else' (2001, p. 237).

Arguably, it is more effective for professional support staff to apply communication strategies that target individuals' specific areas of difficulty and thus increase opportunities available to adults to enhance their skills. Thus, helping staff to develop a repertoire of strategies is indicated. As Ware (1997) suggested, for example, being able to monitor an individual's behaviour may involve ensuring that one maintains physical contact in order to sense any reaction. Further research is indicated to determine how effective such methods may be with adults who have severe or profound intellectual disabilities living in large centres.

Education and training, a third theme, has the potential to maximize personal development, ensures maintenance of skills and improves quality of life of service users as staff are more confident during social interactions. Beveridge and Hurrell (1979) suggest that staff members could avail themselves more of the considerable number of opportunities to develop the communication skills of people with an intellectual disability. Interestingly, most participants in this study, too, believed that training is of paramount importance: its benefits for staff, and also for enhanced quality of life for individuals whom they support, have been widely endorsed elsewhere (Money, 2000; Royal College of Speech and Language Therapists, 1996). Speech and language therapists might be invited to put in place procedures to encourage staff members who seek their expert advice (van der Gaag and Dormandy, 1993; Weldon and Weingart, 1993). Practices should be reviewed to ensure that interventions target individuals' unique communication needs, perhaps by embedding these person centred planning processes (O'Brien and Lovett, 1992).

Finally, the staff members' perceptions of environmental influences on communication skills reflected the argument of Robinson and Thompson (1999) that perceptions might be expected to influence how residential staff members behave towards clients and in turn how well positive residential lifestyle objectives are met. Environmental communicative problems need to be addressed by staff nurses and service providers in order to promote a more nurturing communicative environment for people with intellectual disabilities. This means that staff and service providers are responsible for making sure that their privacy is encouraged so that communication can be enhanced. In addition people providing the services are more significant than the building in which the service is located. Therefore it is essential that staff when looking to facilitate

meaningful experiences in communication for people with complex needs do not forget the value of simply being with the person.

Conclusion

This small-scale study identified mismatching of strategies and needs in meeting the communication needs of people with severe to profound intellectual disabilities living in a large congregate residential setting in Ireland. Given the vital importance of effective communication in improving greater quality of life for individuals in this group, it is recommended that staff members widen their focus and view individuals who communicate non-verbally as equal partners in social interactions. Doing so means that, in practice, nurses and other professionals should become more aware of their own communicative strategies and, by using optimal assessment techniques, try to match strategies with the distinctive needs of individuals in this group. Nurses who work with people with severe and profound intellectual disabilities may thus act as advocates, and focus not on what they are unable to do but on their abilities and strengths.

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Appendix 1: verbal and non-verbal communication (McConkey et al., 1999)

Verbal communication acts:

- talk
- questions
- instructions
- corrections
- opinions
- suggestions.

Non-verbal communication acts:

- looking
- touching
- pointing
- posture

- gesture
- head nods.

Appendix 2: topic guide for individual interviews

- What do you think the word 'communication' means?
- What do you think is the importance of communication?
- What do you feel are the barriers to good communication?
- What do you believe are important communication skills when interacting with people with a severe to profound learning disability?
- How do you feel about communicating with service users who use non-verbal communication?
- From your experience, would you tell me about the usual verbal acts that you would use when communicating with non-verbal service users?
- Tell me, are there any adjustments you make when speaking to non-verbal service users with severe to profound intellectual disability?
- Would you describe for me what non-verbal methods of communication you use when communicating with non-verbal service users?
- What do you think are the main communication aids you use when communicating with non-verbal service users?
- What are your preferred methods of communication when carrying out an activity with your chosen service user, i.e. the person you did the video interaction with?

Appendix 3: topic guide for focus group interview

- Can you tell me what communication skills are important when interacting with service users with severe to profound intellectual disability?
- Describe what non-verbal methods of communication you use when communicating with non-verbal service users.
- How do you choose what methods of communication or aids to use with particular service users?
- What are your preferred methods of communication when interacting with a non-verbal service user?
- From your experience, what visual and verbal acts have you found to be useful when communicating with service users with severe to profound intellectual disability?
- Are there any adjustments you make when speaking to non-verbal service users with severe to profound intellectual disability?

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