Manuscript Title: Communicating in the pre-hospital emergency environment

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## Key Question Summary

1. What is known about the topic?

It is imperative that communication between patient and paramedic is clear and effective. Research has shown that communication boards have been effective with people with temporary or permanent communication difficulties.

2. What does this paper add?

This is the first paper outlining the development and use of a communication board by paramedics in the pre-hospital setting in Australia. The paper details the design of the communication board for the unique pre-hospital environment. The paper provides some preliminary data on the use of the communication board with certain patient groups and its effectiveness as an alternative communication tool.

3. What are the implications for practitioners?

The findings support the use of the tool as a viable option in supporting the communication between paramedics and a range of patients. It is not suggested that this communication board will meet the complete communication needs of any individual in this environment, but it is hoped that the board's presence within the Queensland Ambulance Service may result in paramedics introducing the board on occasions where communication with a patient is challenging.

# Communicating in the pre-hospital emergency environment

ABSTRACT

Aim: To develop and evaluate the implementation of a communication board for paramedics to use with patients as an augmentative or alternative communication tool to address communication needs of patients in the pre-hospital setting.

Method: A double sided A4 size communication board was designed specifically for use in the pre-hospital setting by the Queensland Ambulance Service and Disability and Community Care Services. One side of the board contains expressive messages that could be used by both the patient and paramedic. The other side contains messages to support patients' understanding and interaction tips for the paramedic. The communication board was made available in every ambulance and patient transport vehicle in the Brisbane Region.

Results: 878 paramedics completed a survey which gauged what patient groups they might use the communication board with. The two most common groups were patients from Culturally and Linguistically Diverse backgrounds and children. Staff reported feeling confident in using the board. 72% of interviewed paramedics agreed that the communication board was useful for aiding communication with patients. Feedback from paramedics suggests that the board is simple to use, reduces patient frustration, and improves communication.

Conclusion: These results suggest that a communication board can be applied in the pre-hospital setting to support communication success with patients.

KEYWORDS

Complex communication needs, communication board, pre-hospital, paramedics

## BACKGROUND

Within the pre-hospital emergency environment, communication between paramedic and patient in an acute, chronic or socially challenging medical situation is a complex process. Paramedics may be presented with an infinite range of conditions or complaints that require careful consideration, and to ensure the best patient outcomes, it is imperative that communication between patient and paramedic is clear and effective. This is particularly important when paramedics approach a patient to undertake a physical assessment, determine a patient's level of pain, as well as discussing symptoms and treatment options. This information exchange between paramedic and patient usually occurs within a short time frame. People who may already have a compromised ability to communicate due to speech difficulties, disability, language barriers or mental illness may well be particularly vulnerable to communication breakdowns in a pre-hospital setting [1-2]. People with an intellectual disability can experience difficulty with communication, including speech. Speech Pathology Australia reports that 1 in 7 Australians have a communication disability arising from problems with speech, language or hearing [3]. It is recognised that communication barriers contribute to decreased quality of care [4-7].

Complex communication needs (CCN) include situations where "speech is temporarily or permanently inadequate to meet all the individual's communication needs, and the inability to speak is not due primarily to a hearing impairment" [8]. Some people have CCN associated with a wide range of physical, sensory and environmental causes which restrict/limit their ability to participate independently in society. In this situation Alternative or Augmentative Communication (AAC) methods could be used either temporarily or permanently [9]. Research has shown that communication boards have been effective with other populations of people including

people from Culturally and Linguistically Diverse (CALD) backgrounds [10] and patients who have been mechanically ventilated [11]. Printed words and pictures can be an effective way to communicate with patients who have a hearing impairment or are unable to speak [12]. Having an additional strategy to speech has benefits for both the person with CCN and the communication partner [1,13].

Communication boards are applicable to a range of people [14-15] and have been used successfully in medical settings[16-17]. Research on Vidatak EZ board by the Children's Hospital in Boston indicated increased patient satisfaction, decreased frustration and increased patient outcomes [1]. For communication boards to be successful, they should be simple and easy to use [14,16]. Light et al (under review) [18] outlined three factors influencing the use of aided communication. One of these factors was the design of the aided system used to enhance communication success between an individual with communication challenges and their communication partner. They listed important considerations when designing a communication aid as: a) the content; b) how content is to be represented; c) the organisation of the content; and, d) the presentation of the content. Surprisingly, there were no studies outlining how to develop a display [19]. The current authors were not aware of any communication tools that had been developed specifically for paramedics that would help to guide the content of the tool.

In 2010, the Queensland Ambulance Service (Department of Community Safety) and Disability and Community Care Services (Department of Communities) collaborated in the design of an educational package to provide paramedics with the tools and knowledge to enable clear communication with vulnerable people in the community. Vulnerable populations include those with disabling, catastrophic or chronic illnesses; those unable to advocate or speak for themselves; those with mental health issues; and those facing barriers to access that may be physical, cognitive, age, language,

cultural, literacy or stigma based [20]. Within Disability and Community Care Services, consultation occurred with Discipline Senior Speech and Language Pathologists, a service user advisory group comprised of adults with Intellectual disability, parents, friends and paid carers of people as well as managers of the accommodation support service. It was also reviewed by members of the Vulnerable Clients Program Initiative (VCPI) reference group and Queensland Ambulance Service (QAS) senior managers. The involvement of paramedics in choosing vocabulary was essential to include meaningful, relevant and potentially motivating messages and for grouping priority information that may need to be provided to a patient.

The VCPI package includes a visual tool, which was designed to support communication between vulnerable patients and paramedics in emergency, low acuity and complex social situations. It was envisaged that a visual tool would provide an additional or alternative method for clients to communicate messages about their current health status and well-being, as well as paramedics using the tool to communicate treatment options with patients. This paper outlines the development of the board and presents preliminary data on its use within the pre-hospital environment.

## AIM

To develop and evaluate the implementation of a communication board for paramedics to use with patients as an augmentative or alternative communication tool to address communication needs of patients in the pre-hospital setting.

## DEVELOPMENT OF COMMUNCIATION BOARD

### *Design*

Based on the reviewed literature, a double sided A4 size communication board (Figure 1) was identified as a tool for use in the pre-hospital emergency setting. As this tool was intended to be used with minimal training, it was imperative that the content and layout of the board was kept simple to maximise the likelihood that a paramedic and patient would use the board.

FIGURE 1 HERE

*Layout*

It is important that strategies to address communication barriers consider both receptive and expressive language [5,15]. One side of the board contains expressive messages that could be used by both the patient and paramedic. The other side contains messages to support patients understanding and interaction tips for the paramedic. The design of this board caters for a range of communication issues and a range of complex communication needs as each patient was likely to have different communication abilities, abilities to access the tool (point to or indicate) and reasons for being attended by a paramedic.

*Size*

The size of the board was influenced by the pre-hospital environment. An A4 sized communication board was deemed the most appropriate size, allowing it to be stored within the ambulance and be easily reproduced.

*Use of symbols*

Picture communication symbols were chosen as the main visual support to be used on the board. These symbols are widely used within the state of Queensland in settings such as early education centres, schools, therapy centres, workplaces and homes of people with CCN. They are a simple and clear way of providing visual

information in a mode that may be accessible to more people, for example, people who may not have literacy skills. Permission was gained from Dynavox Mayer-Johnson to use the symbols. Modification of some symbols was guided by paramedics, for example, the green pain inhaler (Penthrox inhaler) commonly used by paramedics to manage patient pain.

*Expressive side of communication board*

*Vocabulary*

The expressive side of the communication board contains 42 messages which was consistent with the recommended number of concepts used on communication boards in similarly complex environments such as intensive care units [16].

The communication board contains a range of functions of communication such as requests, feelings, questions, comments, acceptance and rejection. The chosen vocabulary was guided by the experience of paramedics to reflect common messages and the pre-hospital environment.

*Other expressive components*

The pain scale was based around the 10 point Wong Baker pain scale developed by Wong and Baker [21]. The scale shows a series of coloured faces and the patient chooses the face that best describes how they are feeling. Numbers were also linked into the scale so that paramedics could ask questions like “How bad is your pain from 1-10, 1 being no pain, 10 being very bad pain”.

A picture of the front and back of a body was included for people unable to indicate location of pain, symptom or injury on their own body. An individual’s movement difficulties, illness or area of injury may preclude them indicating on their own body.

*Access*

It was envisaged that many people would access the board using pointing. The 'Yes' / 'No' / 'I don't know' messages were deliberately spaced across the top of the page to enable patients to access these messages using eye gaze (looking at the desired message) if they are unable to point. The potential for the 'Yes' / 'No' / 'I don't know' messages to be accessed via eye gaze would allow paramedics to gain some knowledge using closed questions even if a patient was not able to access all messages by pointing. For example "Do you have a headache?", "Have you been vomiting?", "Is your pain very bad?" People may be unable to point for communication purposes if they have movement differences, physical restrictions or if they have injury to their upper limbs.

*Receptive side of communication board*

Inadequate information is often provided to people in health care settings [5, 22-23]. The receptive side of the board aims to support paramedics to provide a range of information to the patient. A narrative format was used on a section of the receptive page to help the person understand what may happen to them, for example, if they need to travel to hospital in an ambulance. Social stories have been used to decrease fear, aggression and obsessions, and teach appropriate social behaviour in children with Autism Spectrum Disorder [24-25]. Whilst our narrative does not use the specific formula of a social story it does provide an information story on what may happen to the patient. It also pre-empts the need for a patient to have to ask numerous questions which may be challenging and time consuming for them.

There are three simple instructions that paramedics can use to ensure a safe environment, including "please wait", "please be still" and "please calm down".

*Paramedic training*

Education and training of paramedics was undertaken by VCPI project coordinators during face to face training sessions, at hospital emergency departments, and at station meetings. The communication board was made available in every ambulance and patient transport vehicle (n=180) in the Brisbane Region. It was also made available in the resource section on the laptop computer that accompanies each paramedic team on shift in the ambulance.

## METHOD

Data on the acceptability and uptake of the board was sought from a post training evaluation survey, and from staff interviews.

*Post training evaluation survey*

The post training evaluation survey included a number of qualitative items, a length of training rating and confidence ratings on the use of the VCPI resources. Data form the qualitative item “Who might you use the board with?” and the communication board confidence rating will be reported.

*Paramedic Interview*

The paramedic interview was administered to paramedics at hospital emergency departments in the Brisbane Region. The interview was administered by VCPI project co-ordinators and comprised items measuring staff attitudes, behaviour, and implementation of the VCPI resources. Three questions of the interview focussed on the communication board. Question one asked “What vulnerable client groups have you used the communication board with?” Question two was a likert scale question asking agreement with the following statement: “The communication board was useful for aiding communication with patients”. The response scale for question two

was “strongly disagree”, “disagree”, “neither agree nor disagree”, “agree”, and “strongly agree”. The third question asked paramedics to identify some of the barriers to use of the communication board.

*Communication Board Interview*

A brief communication board interview was designed for VCPI coordinators to administer to paramedics while at hospital emergency departments in the Brisbane Region. Questions included “What vulnerable client group did you use the communication board with”, ‘Was the board useful for aiding communication with the patient”, “Was the board simple to use”, “Did the patient find the board easy to use”, and “What is your overall impression of the communication board as a resource for the QAS”.

RESULTS

*Post training evaluation survey*

1018 operational staff completed a baseline and training evaluation survey at the VCPI training session. One item on the survey asked the participants to state what patient groups they might use the communication board with. Staff perceived that they could use the communication board with the vulnerable client groups mentioned in table 1. The two most common responses were patients from CALD backgrounds and children, followed by people with a hearing impairment, people with a communication difficulty, and those with a disability or intellectual disability. When the same staff were asked to rate their confidence in using the communication board with patients the mean was 7.40 (S.D. 1.87) for Acute Care Paramedics, 7.28 (S.D. 1.49) for Intensive Care Paramedics, 7.88 (S.D. 1.54) for Patient Transport Officers, 7.17 (S.D. 2.03) for diploma students, and 7.55 (S.D. 1.57) for university students. The confidence scale was from 1 to 10, with 1 being ‘not confident’ and 10 being

'extremely confident'. These results were positive in suggesting that paramedics felt confident to use the board with a range of people.

TABLE 1 HERE

*Paramedic Interview*

One hundred and thirteen (113) interviews were conducted with paramedics at hospital emergency departments across the Brisbane Region. Twenty-six (26) out of the 113 (23%) interviewed paramedics reported having used the communication board with 36 patients. Table 2 shows the vulnerable client group use of the communication board by interviewed paramedics. These 26 interviews were conducted at Royal Brisbane & Women's Hospital (44%), Princess Alexandra Hospital (12%), Prince Charles Hospital (25%), and at Queen Elizabeth II Hospital (19%). Of the 26 paramedics who had used the board, 72% agreed that the communication board was useful for aiding communication with patients. The other 28% neither agreed nor disagreed to the communication board being useful.

TABLE 2 HERE

An additional question asking paramedics to identify some of the barriers to use of the communication board was included. Responses included being too busy, the patient's capacity to understand, and the patient agreeing to its use.

*Communication Board Interview*

Seven communication board interviews were conducted with paramedics at hospital emergency departments across the Brisbane Region. Paramedic feedback is in table 3.

TABLE 3 HERE

## CONCLUSION

Of the 631 paramedics, patient transport officers and paramedic students surveyed, most people rated their confidence in using the communication board as 7.5 out of a possible 10. At a later time, 113 paramedics were interviewed and 23% had used the communication board in their work with patients. Paramedics reported, both at survey and at interview, that CALD patients were the leading group for communication board use in this study. These results suggest positive implications in terms of the applicability of a communication board in the pre-hospital setting in supporting communication success with patients. Some paramedics reported that they now permanently display the communication board within the ambulance environment. Feedback from paramedics suggests that the board is relatively simple to use and reduces frustration for the patient.

An increase in the use of the board may have been experienced had there been specific training for the staff groups. As Light (1988) [26] explains, tools are only one part; communication is about the effectiveness of the interaction. Training for communication partners has been shown to be effective in better supporting the communication of people with complex communication needs [14, 27-28]. In the communication context, there is a lack of training around intellectual impairment for medical, paramedic and nursing staff [7].

Paramedics identified some barriers for implementing the use of the board. The first barrier, being too busy, may indicate that the paramedic has to address too many other tasks that communication does not take priority. It may also refer to the belief that using AAC increases the time required to communicate [29]. In ventilated

patients, it was reported that having access to a communication board increased the efficiency and speed of their communication [11]. The second reported barrier, patient's capacity of understand, raises questions around the perceptions of intellectual ability. Sometimes when a person may not have speech, there is an automatic assumption made that they have limited capacity to understand.

It is plausible that many of the paramedics would be experienced and have developed strategies of their own to support communication with people with a disability and complex communication needs. Anecdotal comments made by paramedics were captured during the interviews. One theme that emerged was around paramedic engaging family members as the main communication partners where possible in interactions with people with a disability. These familiar communication partners can usually support the most effective communication possible. It is recognised in other health settings that the majority of people with CCN still rely on family members and carers to support their communication [9,12].

There may also be factors associated with a lack of comfort in using AAC. It is recognised in the AAC community that not all assistive devices will be used over a consistent period of time. One study which highlighted abandonment of assistive technology (which included AAC devices) found that on average one third of all assistive technology is abandoned [30].

Future opportunities include exploring the impact of focussed training and whether it would increase paramedic confidence and use of the communication board with a broader patient group. Practice using the board via role plays with colleagues or people with CCN may be a useful training strategy. A tip list could be supplied to paramedics outlining when to consider using the board. It would be pertinent in future

research to explore demographic variables of operational staff and whether they predict communication board use.

The results indicate that paramedics had used the board with the intended audience of people with a disability and complex communication needs. They also indicate that paramedics had used the board with people with a mental health condition, people from CALD backgrounds, children and homeless people. These findings support the use of the tool as a viable option in supporting the communication between paramedics and a range of patients. It is not suggested that this communication board will meet the complete communication needs of any individual in this environment but it is hoped that the board's presence within the QAS may result in paramedics introducing the board on occasions where communication with a patient is challenging.

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REFERENCES

1. Costello JM. AAC intervention in the intensive care unit: The Children's Hospital Boston Model. Augmentative and Alternative Communication. 2000;16:137-53.

2. Williams, B. Developmental Disability Medicine: Isn't it time for its inclusion into the paramedic curriculum? Journal of Emergency Primary health Care; 4(2).

3. Speech Pathology Australia. Speech Pathology Australia. 2011; Available from: http://www.speechpathologyaustralia.org.au/.

4. Finke EH, Light J, Kitko L. A systematic review of the effectiveness of nurse communication with patients with complex communication needs with a focus on the use of augmentative and alternative communication. Journal of Clinical Nursing. 2008;17:2102-15.

5. Fried-Oken M, Rowland C, Baker G, Dixon M, Mills C, Schultz D, et al. The effect of voice output on AAC-supported conversations of persons with Alzheimer's Disease. ACM Transactions on Accessible Computing. 2009;1(3):15:1-:1.

6. Iacono T, Davis R. The experiences of people with developmental disability in emergency departments and hospital wards. Research in Developmental Disabilities. 2003;24:247-64.

7. Lennox N, Kerr M. Primary health care and people with an intellectual disability:the evidence base. Journal of Intellectual Disability Research. 1997;41:365-72.

8. American Speech-Language-Hearing Association. Augmentative and alternative communication: knowledge and skills for service delivery. ASHA 2002;Supplement 22:97-106.

9. Balandin S. Message from the Present. The ISAAC Bulletin. 2002;67:2.

10. Larroude B. Multicultural-Multilingual Group Sessions: Development of functional communication. Topics in Language Disorders. 2004;24(2):137-40.

11. Patak L, Gawlinski A, Fung NI, Doering L, Berg J, Henneman EA. Communication boards in critical care: patients views. Applied Nursing Research. 2006;19:182-90.

12. Flynn PT, Hendricks KL. Using communication boards in the field. Journal of Emergency Medical Services. 1991;August:30-1.

13. Balandin S, Helmsley B, Sigafoos J, Green V. Communication with nurses: The experiences of 10 individuals with cerebral palsy and complex communication needs. Applied Nursing Research. 2007;20:56-62.

14. Light J, Roberts B, Dimarco R, Greiner N. Augmentative and Alternative Communication to Support Receptive and Expressive Communication for People with Autism. Journal of Communication Disorders. 1998;31:153-80.

15. Pressman H, Blackstone S. Overcoming patient-provider communication barriers in health care settings. 14th Biennial Conference of the International Socienty for Augmentative and Alternative Communication; Barcelona, Spain; 2010.

16. Costello J. Communication vulnerable patients in the paediatric ICU: Enhancing care through augmentative and alternative communication. Journal of Paediatric Rehabilitation Medicine. 2010;3:289-301.

17. Silverman FH. Communication for the speechless. New jersey: Prentice-Hall; 1980.

18. Light J, Wilkinson K, Drager K. Designing effective ACC systems: research evidence and implications for practice. Under review. Under review.

19. McFadd E, Wilkinson K. Qualitative analysis of decision making by Speech-Language Pathologists in the design of Aided Visual Displays. Augmentative and Alternative Communication. 2010;26(2):136-47.

20. Vulnerable Populations Task Force. Report to the Blue Ribbon Commission. Colorado: Blue Ribbon Commission; 2007; Available from: http://www.colorado.gov.

21. Wong D, Baker C. FACES pain rating scale: Development of the Wong-Baker FACES pain rating scale. 2002; Available from: www.wongbakerfaces.org.

22. Cumella S, Martin D. Secondary healthcare for people with a learning disability: British Institute for Learning Disability, Department of Health; 2000.

23. Owens J. Accessible information for people with complex communication needs. Augmentative and Alternative Communication. 2006;22(3):196-208.

24. Gray CA. Social stories and comic strip conversations with students with Asperger syndrome and high-functioning autism. In: Schopler E, Mesibov GB, Kunce LJ, editors. Asperger syndrome or high-functioning autism. New York: Plenum Press; 1998. p. 167-98.

25. Hagiwara T, Myles BS. A multimedia social story intervention: Teaching skills to children with autism. Focus on Autism and Other Developmental Disabilities. 1999;14:82-95.

26. Light J. Interaction involving individuals using augmentative and alternative communication systems: State of the Art and Future Directions. Augmentative and Alternative Communication. 1988;4:66-82.

27. Bray A. Effective communication for adults with an intellectual disability. Wellington: Donald Beasley Institute; 2003.

28. Sigafoos J. Creating opportunities for augmentative and alternative communication: Strategies for involving people with developmental disabilities. Augmentative and Alternative Communication. 1999;15(3):183-90.

29. Kraat A. Communication interaction between aided and natural speakers: A state of the art report. Toronto: Canadian Rehabilitation Council for the Disabled1985.

30. Philips B, Zhoa H. Prediction of assistive technology abandonment. Assistive Technology. 1993;5:36-45.

Table 1.Survey question – Who might you use the communication board with? (this item allowed multiple responses)

| Vulnerable Client Group | ACP<br>n=482 | ICP<br>n=70 | PTO<br>n=76 | Diploma student<br>n=168 | University student<br>n=82 |
|---|---|---|---|---|---|
| CALD | 168 | 23 | 11 | 45 | 22 |
| Children | 167 | 16 | 2 | 49 | 34 |
| Hearing impairment | 50 | 6 | 10 | 20 | 5 |
| Communication difficulty | 47 | 16 | 22 | 33 | 27 |
| Disability | 44 | 11 | 5 | 26 | 16 |
| Intellectual disability | 34 | 11 | 1 | 15 | 14 |
| Stroke | 21 | -- | 12 | 3 | 1 |
| Autism | 10 | 9 | 1 | 15 | 3 |
| Acquired brain injury | 9 | -- | 3 | -- | 1 |
| Elderly | 9 | 5 | 3 | 3 | -- |
| Other | 26 | -- | 2 | 2 | 14 |

Note: ACP-Acute Care Paramedic; ICP-Intensive Care Paramedic; PTO-Patient Transport Officer; Diploma student paramedic; Bachelor of Paramedical Science university student, Queensland University of Technology. Other = Aphasia, Facial/Jaw Trauma, Mental Illness, Homeless, Learning Difficulties, Special Needs, Multiple Sclerosis, Bereaved, Dementia, Domestic Violence and Paralysis.

Table 2. Vulnerable Client group use of communication board from paramedic interview

| **Client groups** | **n** |
|---|---|
| Culturally and Linguistically Diverse | 7 |
| Children | 5 |
| Homeless | 5 |
| Disability | 4 |
| Mental health | 4 |
| Hearing impairment | 4 |
| Stroke | 2 |
| Domestic violence | 2 |
| Elderly | 1 |
| Indigenous | 1 |
| Bereaved | 1 |

Table 3. Paramedic feedback from communication board interview

| Vulnerable Client Group | n | Paramedic Feedback |
|---|---|---|
| Culturally and Linguistically Diverse | 4 | The patient could understand the symbols on the board. The board was very useful and effective.<br><br>The patient used the board to describe pain levels and regions affected. The symbols and pictures were used with ease by the patient.<br><br>The patient found it easy to use. The board was very practical.<br><br>The patient could point and communicate easily. The pictures seemed to work well. |
| Disability | 3 | The board makes the patient more comfortable and forthcoming with information. It appears to lower their frustration re difficulty in communicating. (Patient with Autism Spectrum Disorder, 8-12 year old male)<br><br>The board was very useful as the patient was able to understand my question but was unable to verbally answer. The board aided effective treatment of the patient. It was simple to use for myself and the patient. It is a great resource. (Patient with intellectual disability, unable to speak)<br><br>Patient was able to show crew how she was feeling. She pointed to symptoms and nodded her head in affirmation. (Patient with hearing impairment) |

Figure 1. Communication Board designed for the Queensland Ambulance Service

**Vulnerable Clients Program Initiative Evaluation Survey**

**Please take a few moments to complete this survey to provide feedback on your attendance at the training. Please complete the following questions <u>after</u> the training session.**

**Personal code:** Last 2 letters of your surname and your age (example: Beth Johnson aged 38 would enter ON38). (The code is used in data analysis to compare the results of staff at different time points)
**Please enter your personal code: __ __ __ __**

**Presenters name:** _____ **Date:** _____

**Please rate the extent to which you agree with the following statements (tick the most appropriate response).**

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 1. My previous knowledge was enhanced by this session | | | | |
| 2. I learnt something new | | | | |
| 3. The session met my needs | | | | |
| 4. The topic of the training was relevant and useful | | | | |
| 5. The training was well structured | | | | |
| 6. The training was easy to follow | | | | |
| 7. The method of delivery (e.g., face to face, DVD) worked for me | | | | |
| 8. The visual aids were clear and easy to follow | | | | |
| 9. The group discussions / scenarios were interesting and useful | | | | |
| 10. The presenter(s) was clear and easy to follow | | | | |

11. What is the key learning you will take back to work with you?

_____

_____

12. What other topics would you like to see included in the training?

_____

_____

13. Rate the length of training:

- □ Too short
- □ Just right
- □ Too long

14. How confident would you be in using the communication board?

1 2 3 4 5 6 7 8 9 10

Not confident — Extremely confident

15. Who might you use the board with? _____

_____

16. How confident would you be in using a referral system? (e.g. information card)

1 2 3 4 5 6 7 8 9 10

Not confident — Extremely confident

17. Are there any other reference tools/aids to learning that you would find useful?

_____

_____

18. Is there anything else you want to tell us?

_____

_____

*Thank you for taking the time to complete this survey.*

**Paramedic Interview**

Position: □ ACP/ICP □ Student Paramedic □ Other

Station: _____

"If you can answer a few questions for me first, it will give me an idea of what to focus on during our discussion".

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| 1) The VCP has made me more aware of the | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| issues experienced by vulnerable clients | | | | | |
| 2) The VCP has helped me respond to the concerns of vulnerable clients more effectively | | | | | |
| 3) The VCP has encouraged me to take a Second Look when on-scene with a vulnerable client | | | | | |
| 4) The communication board was useful for aiding communication with patients | | | | | |
| 5) The information card was a useful resource to give to patients | | | | | |

6) Have you referred any patients to SupportLink, the active referral system?

Yes ☐ No ☐ Details of social issue:_____

7) What are the barriers for offering a referral to a patient?

Time constraints ☐ Nature of case/scene ☐ How to broach the subject ☐ Patient capacity ☐

8) What vulnerable client groups have you used the communication board with? _____

_____

9) What vulnerable client groups have you been giving the information card to?

_____

10) Have you obtained verbal consent from patients for a follow-up interview and recorded this on the toughbook?

Yes ☐ No ☐

11) I have used the VCPI folder on the tough book to get information about the tools

Yes ☐ No ☐ If No, why not: _____

12) I have entered Vulnerable Client data on the eARF

Always ☐ Sometimes ☐ Never ☐ If Never, why not: _____

**Communication Board Interview**

1) What vulnerable client group did you use the communication board with?

_____

2) Was the board useful for aiding communication with the patient? _____

_____

3) Was the board simple to use? _____

_____

4) Did the patient find the board easy to use? _____

_____

5) What is your overall impression of the communication board as a resource for the QAS?

_____

_____