

Supplemental Material S1. Survey questions for providers.

1. What is your occupation?

2a. Please rate the perceived level of frustration your nonspeaking patients experienced when they were unable to speak or communicate effectively.

Not at all frustrated	Slightly frustrated	Moderately frustrated	Very frustrated	Extremely frustrated
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2b. Do you believe your patients' frustration would decrease if they had access to alternative communication strategies (e.g., a picture/spelling board, a communication application/device, etc.)?

Strongly disagree	Disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
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2c. How often did your nonspeaking patients attempt to initiate or initiate conversations (e.g., asked questions) with you when they were unable to speak?

Never	Sometimes	About half the time	Most of the time	Always
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2d. How often did you attempt to initiate or initiate conversations with your nonspeaking patients when they were unable to speak?

Never	Sometimes	About half the time	Most of the time	Always
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2e. How often was your communication with nonspeaking patients ineffective (i.e., you not understanding what your patient meant or needed; and/or you not being understood by your patients)?

Never	Sometimes	About half the time	Most of the time	Always
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2f. How often were you able to resolve these communication breakdowns or experiences with ineffective communication?

Never	Sometimes	About half the time	Most of the time	Always
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2g. How often did your patients give up conveying their needs, wants, and thoughts when they were struggling to communicate?

Never	Sometimes	About half the time	Most of the time	Always
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2h. How important do you think effective communication is to the care of your nonspeaking patients in the intensive care unit (ICU)?

Not at all important	Slightly important	Moderately important	Very important	Extremely important
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2i. You are confident that you used the most appropriate strategies when communicating with your nonspeaking patients.

Strongly disagree Disagree Neither agree nor disagree Somewhat agree Strongly agree

2j. Do you believe that you received sufficient training on how to communicate effectively with your nonspeaking patients?

Strongly disagree Disagree Neither agree nor disagree Somewhat agree Strongly agree

2k. You have the appropriate resources to implement effective communication strategies with your nonspeaking patients (e.g., picture/spelling boards, communication applications/devices, both high-tech and low-tech strategies can be counted).

Strongly disagree Disagree Neither agree nor disagree Somewhat agree Strongly agree

3. Please list 3-5 most important messages that your nonspeaking patients would have liked to convey during their stay in the intensive care unit (ICU).

4. Overall, were your patients able to communicate these messages?

Yes Maybe No

5. Can you explain the possible barriers that prevented your patients from conveying messages?

6. Have you experienced any situations that your patients intended to say something but gave up due to their inability to communicate? If yes, please briefly describe what you usually did to help them convey messages?

7. Have you experienced any situations that your patients did not understand or misunderstood your messages? If yes, please briefly describe one experience and what you did to make them understand you better?

8. How did you communicate with your nonspeaking patients? Please use the number 1-5 to rank the five most frequently used methods, with 1 indicating the most frequently used.

	Asked yes/no questions
	Used gestures
	Read your patients' lips while they were mouthing words

	Provided your patients with a pen and a paper/whiteboard for them to write or draw
	Provided your patients with a picture board
	Provided your patients with a spelling board
	Talked to their caregivers
	Provided your patients with a keyboard on electronic devices (e.g., a smartphone, a tablet, etc.)
	Provided your patients with a communication application (app.) on an electronic device
	Provided your patients with a communication display on which they could select messages by looking at them
	Provided your patients with an electronic device on which they could select messages by looking at them
	Others _____

9. If you could have used any materials you wanted to help your nonspeaking patients to communicate, what would it be? Please list 3 methods that you would have preferred to use.

10. What types of patients would you refer to a speech-language pathologist (SLP)/speech therapist (ST)?

11. How did you communicate with nonspeaking patients who did not speak English?

12. Would you like to participate in a series of training modules (e.g., 15 mins for each, 1.5 hours in total) to learn to better communicate with your nonspeaking patients? If yes, what do you think should be included in the training (e.g., alternative communication strategies; how to select the appropriate strategies for different patients; case studies; simulations; etc.)

13. Is there anything else you would like to share about your experience or your expectation to work with nonspeaking patients in the intensive care unit (ICU) regarding effective communication?