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HEALTH CHALLENGES IN CONSCIOUS INTUBATED PATIENTS-CONCEPT REVIEW

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ABSTRACT

Patients benefit from maintaining consciousness throughout intubation; but, they may experience a variety of adverse physical and mental consequences, such as pain, dyspnea, and fear, and helplessness, loss of control, speech difficulties, and anxiety. The physical and psychological well-being of cognizant intubated patients is adversely affected by communication difficulties. Health care professionals tackle this matter by utilizing a range of available communication instruments in addition to traditional approaches such as assessing through sign languages and gestures. Enhancing communication between healthcare professionals and conscious intubated patients can be achieved through the use of Augmentative and Alternative Communication (AAC) devices, which are readily available. While there are various communication aids at the disposal of clinical caregivers, they should utilize the most patient-centric communication technologies possible, despite the fact that several alternatives exist.

KEYWORDS: Communication, Intubation, Conscious, Communication Difficulties, Communication Methods, Augmentative and Alternative Communication.

INTRODUCTION

Professions that are deeply personal and emotional is health care. In this field, communication is really crucial. Nurses are the ones that participate directly in the patient's care process on a constant basis. Sometimes the conditions of the patient and the treatment regimen make verbal communication impossible. One such life-saving technique that impairs verbal communication is intubation.

There's an evolutionary change occurring in intensive care units with an increasing trend toward lesser sedation (Chanques et al., 2017; Devlin et al., 2018; Stollings et al., 2022). However, light or no sedation procedures represent a significant change in clinical practice this may cause challenges for patients. When conscious patients are placed on the mechanical ventilator, it might be stressful for them. Even

though having a tracheostomy makes patients quite comfortable, some patients still need lengthy endotracheal intubation days.

Modern strategies aimed at keeping patients awake during intubation places critically ill patients to significant communication challenges due to the resulting cognitive, sensory, and communication deficiencies (Russotto, 2021). A health challenge of the patients that has to be addressed is the experience of being conscious during endotracheal intubation and tracheostomy tube with regard to communication difficulties. The challenges are also for the health care workers who cater to the conscious patients' needs without their ability to speak.

Patients' and health care providers' experiences with barriers to communication which impact the standard course of care are being discussed in many studies (Happ, 2021; Holm et al., 2020; Karlsen et al., 2020).This has gradually caused the focus to move toward a greater understanding of how long-term intensive care therapies affect patients' desire for communication as well as the necessity for healthcare providers, particularly nurses, to foster a caring and humanizing environment(Kvande et al., 2021; Velasco Bueno & La Calle, 2020).

While techniques and resources available can be employed to enhance communication with people who cannot speak (Beukelman and Light, 2020, p. 9), to provide light on the current state of communication practice, new perspectives and more advanced understanding of care concepts is required (Im & Meleis, 2021). A greater comprehension of the underlying ideas may also have an impact on the creation of strong, meticulously planned care strategies to overcome the communication difficulties.

General Objective –
To understand the health challenges among conscious intubated patients in light of communication difficulties.

Specific objectives –
To determine the impact of communication difficulties among conscious intubated patients.
To describe the barriers of communication between nurse and conscious intubated patients.
To list the methods adopted to improve the communication among health care workers and conscious intubated patients.

Communication model in the context of communication challenges
People are able to create and maintain interpersonal connections because of their communication skills. These connections foster understanding amongst people (Mumba & Phiri, 2019). The communication models play a crucial role in streamlining the communication processes in an effective way. Communication is not nearly as easy in real life as it is in the model. A broken communication process can result from a variety of circumstances like disruption of verbal communication in mechanical ventilated patients. The disruption in communication process may be understood through the Berlo's Model of Communication which include four components namely sender, channel, message and receiver. Each element further consists of five sub components. If all the components synchronise effectively between sender and the receiver, the communication is effective. The risk associated with asynchronous communication is that neither the sender nor the recipient will get immediate feedback about the effectiveness of the message. It also keeps the message from being changed, which means that certain issues are unable to be more effectively explained (Janse, 2018). A broken communication process can result from a variety of circumstances in the four components and five sub components

respectively. A brief discussion in reference to Berlo's Model of communication (Muyanga& Phiri, 2021) in figure 1 is discussed in details.

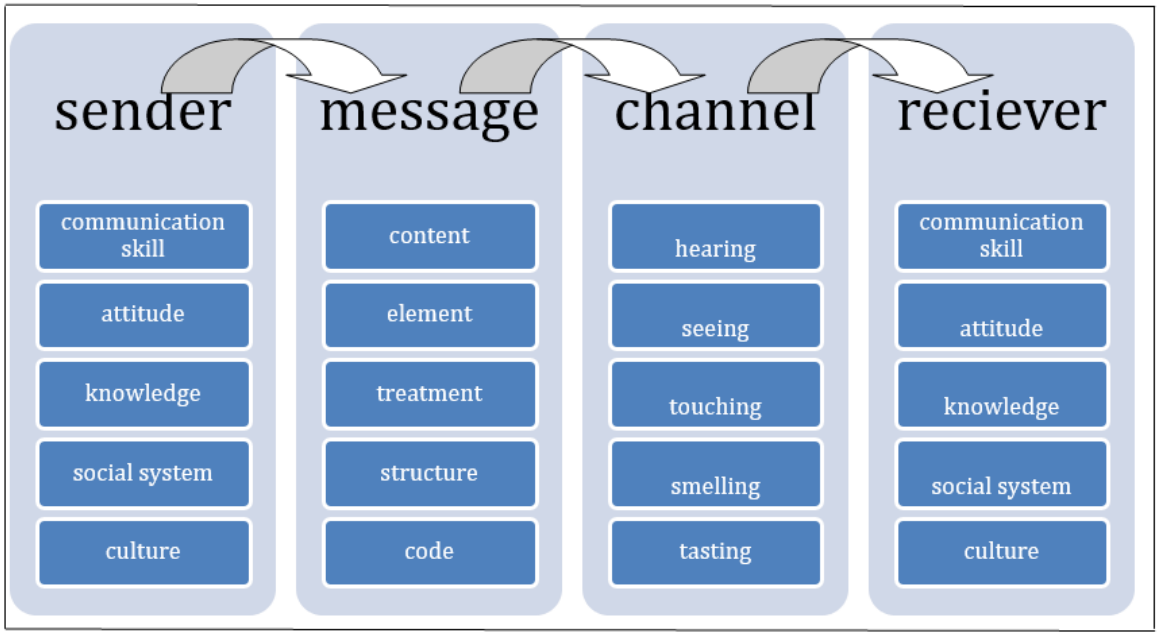

Figure 1 *(Berlo's SMCR Model (1960).)*

Disruption in communication process-
A disrupted communication process may occur from a wide range of conditions in patients.

Sender
The message sender has to encrypt the message so that it is fully understood by the recipient. He or she may decide to convey this verbally, but in case of intubationnon verbal communication techniques are adopted by conscious patients. In such cases seldom does a message convey the entire meaning. In certain instances, a message might not even fully express the message's intended recipient (Rathiram et al., 2022) sometimes due to misinterpretation of sign languages by the nurses.

Message
The sender must first transpose, or translate, the messages into symbols that the recipient can comprehend. Symbols can be sounds, images, or other sensory data in addition to words (e.g., touch or scent). The sender's mental images can only be meaningful to others through these symbols (Al-Yahyai, et al., 2021; Karlsen, et al., 2019). The message might be misinterpreted if intended symbols are not encoded effectively by the sender. This may happen in case of conscious intubated patients who are unable to speak but can only express by writing or sign languages without using any communication aid.

Channel
Three types of channels may be employed as communication channels to transfer messages between senders and recipients: written, spoken, and visual (Muyanga& Phiri, 2021). Additional means of transmission encompass physical distances between the transmitter and the recipient, contact, and gestures. The channels of communication may be disrupted due to intubation where ability to speak is disrupted. Other environmental factors of intensive care unit setting like noise, light and medical

devises are also responsible to disrupt the channel of communication. Non-intentional interruption in message delivery happens accidentally and can happen, for instance, when a sender utilizes incomprehensible gestures that make it harder for the recipient to interpret the message.

Receiver

Patients' willingness to accept treatment, take personal responsibility for their health, and actively participate in their treatment depends on the strength of the nurse-patient relationship and communication (Mumba & Phiri, 2019; Muyanga & Phiri, 2021). This may be strained when verbal communication is impossible by the patient. Also, the therapeutic communication has been shown to be hampered by the cultural and belief system gaps between nurses and patients. For example, nodding may be interpreted in different ways in different cultures.

Moreover, the willingness of the receiver to interpret sender's symbols also has great importance in establishing effective communication. Sometimes the personal attributes and belief system of the receiver, the nurse may hamper communication. Attitudes of healthcare providers might limit the quality of care. Often the nurses attend less to the patients who cannot verbalize than those who can.

Impact of communication difficulties among conscious intubated patients

Communication challenges may affect both psychological and physical aspect of patients' well-being.

Psychological Impact

Research studies have reflected some common emotional feelings of conscious intubated patients who lack capability to speak due to the presence of intubation.

1. ***Fear***
2. ***Despair***
3. ***Anxiety***
4. ***Anger***
5. ***Panic***
6. ***Frustration***
7. ***Dismay***
8. ***Helplessness***

Critically ill patients lose their ability to speak when they are intubated. Being unable to communicate can be frightening, distressing, and prevent patients from taking an active role in their care and treatment choices (Danielis et al., 2020; Holm & Dreyer, 2018). Results from research have linked patients' communication issues brought on by endotracheal intubation to upsetting emotional experiences like despair, anxiety, and distorted recollections (IJssennagger et al., 2018; Mortensen, Kjær& Egerod, 2019).

One of the biggest sources of stress for patients on artificial respiration is communication problems, and having a tube inside might make them feel anxious, afraid, or uncomfortable (Baumgarten & Poulsen, 2014). Research indicates that experiencing a lack of communication might lead to emotions of powerlessness (Karlsen, Ølnes, & Heyn,2019) and that communication problems might elicit feelings of anxiety, frustration, and anger in patients (Egerod et al,.2015). Patients have described experiencing panic, unease, uncertainty, despair, depression, loneliness, fear, worry, anxiety, and hallucinations (Topçu et al., 2017).

The studies demonstrate the empathetic vulnerability, a state of fear, anxiety, and loneliness among conscious intubated patients during their treatment period.When the managing health care team's primary concern is on the patients' life-threatening conditions, these aspects of the patient experience are mostly overlooked(Leong et al., 2023).This group of patients with transient communication problem cause them to reflect on unpleasant things which were not properly addressed during conscious intubated days.

Physiological Impact

In order to decide on the best course of treatment patients must be aware of their medical issues and able to convey their physical needs.

Studies describe the common physical needs perceived by patients whom they were unable to express due to intubation and inability to speak includes the following.

1. ***Pain***
2. ***Dyspnea***
3. ***Throat pain***
4. ***Itching***
5. ***Massage***
6. ***Elimination needs***
7. ***Thirst***
8. ***Headaches***
9. ***Discomfort***
10. ***Drowsiness***
11. ***Nausea***

Conscious intubated patients find it difficult to communicate their physiological complaints like pain, dyspnea, throat pain, thirst and itching etc. to their nurses when they face communication difficulties. These patients become extremely frustrated and restless when these essential demands are not communicated. This results into erroneous patient assessments along with recommendations for pharmacological and physical restraint which may lead to poor patient outcomes (Dithole et al., 2017; Hetland, 2018).

The most common physical discomforts reported by intubated patients include pain, tiredness, unease, weakness or impulsivity, noise, thirst, headaches, discomfort from endotracheal tubes, and difficulty swallowing (Leong et al., 2023). Among the physical discomforts intubated conscious patients' primary unmet medical need is thought to be inadequate pain management. This deficiency was ascribed to challenges in precisely identifying and evaluating pain (Hasegawa, 2017).

Other needs which could not be addressed properly and timely due to failure in speech werebathing, eye and mouth care, as well as equipment positioning and adjustment. Also, concerns were shown both from patients and their family caregivers on involvement of the latter in such cares (Schwartz et al., 2022). Author during her clinical care tenure have found that post extubating the patients identified medical devices that caused discomfort included the oxygen mask, saturation prop, and nasogastric tubes, which they could not express during intubated period.

Communication barriers faced by patients in expressing their physical discomfort and demands, need to be addressed by all health care professionals as it is crucial to have a safe space that builds self-worth, a sense of security and drive for faster recovery (Scott et al., 2019).Nurses must initiate strategies to

overcome the communication barriers faced by conscious intubated patients especially when nurses are able to express verbally to the patients and the patients are unable to reciprocate verbally in the communication process.

Barriers of communication between nurse and conscious intubated patients

Nurse-conscious mechanically ventilated patient communication (N-CMVPC) encounters numerous obstacles, including technological, psychological, and physiological ones. These include the patient's critical condition, level of consciousness or sedation, delirium, and neurological diseases that prevent the patient from communicating with nurses or expressing their needs (Ghiasvand et al., 2023).

One of the complications associated with critical patients is that, most of the time, they have altered state of consciousness, either due to pathology or external factors. This limits their ability to communicate, which makes the nurse-patient relationship challenging (Espinoza-Caifil et al., 2021).

It might be difficult to achieve patient-centered care and communication in clinical interactions between nurses and patients since there are always constraints relating to the environment, human behavior and communication. Given their links in clinical contacts, healthcare practitioners need to recognize these barriers of communication as well as patient-centered care. Four categories are used to classify the obstacles to communication: institutional and healthcare system-related barriers, communication-related barriers, environment-related barriers, and personal and behaviour-related hurdles. Despite being covered under different topics; these obstacles are intricately tied together in clinical practice (Kwame &Petrucka, 2021).

1. Institutional and healthcare system-related barriers

The healthcare system or its institutional procedures are the root cause of many of the obstacles that nurses face when attempting to provide patient-centered care and communication during nurse-patient interactions. Some of these elements are connected to managerial approaches and styles, or to policies pertaining to healthcare (Al-Kalaldeh et al., 2020; Yoo et al., 2020).

A complex impediment to effective care delivery at the institutional and healthcare system levels was the lack of nursing staff, the heavy workload, burnout, and time constraints (Al-Kalaldeh et al., 2020). Researchers discovered that lack of adequate number of staffs meant that nurses were unable to spend enough time with patients and their caretakers. A heavy workload and staffing shortages in the nursing department resulted in fewer interactions between nurses, patients, and caregivers (Kwame &Petrucka, 2021). Similarly, other studies too discovered that the biggest barrier impeding therapeutic communication in nurse-patient interactions in was the significant nursing workload (Amoah et al., 2019).

Time constraints have been seen to impact nurse-patient relationships, communication, and the quality of care provided by nurses, patients, and their caregivers (Yoo et al., 2020).

But some healthcare researchers have criticized nurses' concerns about time constraints, despite the fact that a shortage of nursing personnel is a key obstacle to patient-centered care and communication that healthcare institutions and administrators must be aware of (Engle et al., 2019). The excuse of inadequate therapeutic communication during clinical contacts cannot be justified by nurses' claims of being very busy. Positive nurse-patient interactions and communication are not usually the outcome of spending a lot of time with patients. As a substitute, nurses are urged to cultivate self-awareness,

introspection, and a dedication to making sure patients receive the care they require ((Wune et al., 2020)

The healthcare system's emphasis on task-centered care is another institution-related impediment to patient-centered care and communication. The completion of care procedures takes precedence above meeting the needs and preferences of patients and caregivers among healthcare practitioners. Many studies recognize this obstacle to patient-centered care and communication. Many studies recognize this obstacle to patient-centered care and communication (Papadopoulos et al., 2020). In a similar study, researchers noted that when ICU nurses prioritized finishing duties that directly impacted patients' health (such stabilizing vital signs) above talking to patients about their individual needs, it had an impact on nurse-patient communication. According to this data, nurses who are more task-focused see patients and caregivers as entities and objects that need to be treated in a certain way in order to get cured. Studies have indicated that nurses who prioritize task-oriented care may find it challenging to offer patients comprehensive care, as well as to instruct and interact with patients, even during periods of reduced workload (Yoo et al., 2020).

Communication and interaction between nurses and patients are impacted when nurse managers train their nursing staff to use task-centered care techniques. Furthermore, it affects how nurses respond to patients' care demands when nurse managers ignore the mental health needs and personal struggles of their team. For instance, nurses have reported that when nurse managers are unsupportive or insensitive to their needs, it negatively impacts nurse-patient communication (Kwame &Petrucka, 2021). In order to address and support nurses' concerns, nurse managers and care administrators must keep an eye on nurse-patient engagement and communication, particularly in settings with limited resources and frequent patient turnover (Camara et al., 2020; Kwame &Petrucka, 2020).

2. Communication-related barriers

Language difficulties between patients and healthcare professionals makes communication difficult (Al Shamsi et al., 2020). Communication among healthcare professionals and patients influences the quality of care received as well as the results of that treatment (Amoah et al., 2019). Patients' incapacity to communicate verbally because of their health, particularly in ICU, or end-of-life care situations pose communication-related obstacles (Camara et al., 2020). Nurses depend mostly on the non-verbal communication made by the patients which is difficult. Moreover, cultural cognition has a major impact on how people interpret information from various sources like non-verbal communication and endorses practices they might agree with or disagree with (Rachlinski, 2021). Symbols may not imply the same thing to the sender and the recipient of a message, leading to misinterpretation and misunderstandings. Ineffective processing of these could result in prejudice, discrimination, and stereotyping (Aririguzoh, 2022). Interactions between patients and nurses may be impacted by cultural differences in the meanings of specific nonverbal communication acts, such as head nodding, eye gaze, and touching (Kwame & Petrucka, 2020). In patients on mechanical ventilation, miscommunication or misreading patient messages causes anxiety and distress and can have detrimental effects (Happ, 2021). Because in health care setting, there can be a significant cultural and communication gap between nurses and patients, even though they may both speak same languages. Variations in language, speech rate, age, past events, knowledge with medical equipment, education, physical ability, and experience can all contribute to these differences.

Healthcare organizations must make provisions for interpreters and translators to help with nurse-patient interactions when there is a language barrier in order to overcome communication-related difficulties. In addition, nurses who work in intensive care units and other such settings must to become

proficient in using several kinds of communication to engage with patients who cannot speak due to health conditions.

3. Environment-related barriers

Patients, families, and medical staff all have unique experiences in the complicated setting of the intensive care unit (ICU) (Latour et al., 2022). Patients in intensive care units are subjected to stressful situations, which can exacerbate uncomfortable symptoms. Patients in intensive care units frequently and inconsistently report experiencing discomfort as a symptom (Baumstarck et al., 2019; Gunnels et al., 2024; Luckhardt et al., 2022).

Patients are greatly impacted by the ICU setting, which is associated with increased levels of stress, anxiety, and depression (Arora et al., 2022). Intensive care units are constantly busy, it can be challenging to keep noise levels low enough to promote patient restful.ICUs may be quite upsetting for patients, and noise from staff activities and equipment is commonly mentioned as making patients more anxious.It might be difficult for healthcare professionals (HCPs) in intensive care units (ICUs) to communicate with the patients who are very sick. Clinicians can alter the ICU setting, the care given, and the communication with patients by comprehending the experiences and elements of their distress (Latour et al., 2022).

From patients' perspectives studies refer noise, too much light, medical devises and uncomfortable beds as identified discomforts in ICU environment (Vlake et al., 2021; Luckhardt et al., 2022). It is not unexpected that patients describe noise as a major impediment to proper communication and even getting a decent night's sleep in an environment where peak sound levels > 100 dB can occur up to 16 times per hour (Darbyshire et al., 2021). Impacts of sound levels in the intensive care unit also include staff distraction, patient sleep disturbance, and communication difficulties.

When designing an ICU, it's important to take communication-promoting environmental features including noise reduction, natural light availability, the presence of a phone, TV, and clock, as well as privacy preservation, into account (Latour et al., 2022). The well-being of caregivers has a direct impact on the healing process of patients; consideration of the built environment within ICU must be taken into account for the requirements of both staff and patients' well-being.

4. Personal and behavior-related hurdles

The effective communication is two-way conversation between two people. Effective communication between nurses and patients is crucial to achieving effective outcomes in tailored patient care. Inefficient communication between nurses and patients lengthens hospital stays, aggravates client complaints, and wastes resources (Wune et al., 2020). In order to ensure that patients are treated with respect and dignity and as human beings rather than just as bodies, nurses must communicate with patients who are on mechanical ventilation. Nursing care for awake intubated patients is not the same as that for sedated patients. It needs more time, nonverbal cues, consistency, and nurses paying close attention (Nadia et al., 2023).

The quality of nurse-patient engagement and communication has an impact on patients' willingness to fully participate in the care process, follow medical recommendations, and take personal responsibility for their health. Poor communication among nurses can have a negative impact on patient care, nursing procedures, and safety. Nurses who care for adult patients stated they felt accountable for patient communication. However, due to misunderstandings because of difficulty in communication due to intubation, nurses frequently felt responsible for giving inadequate patients care that exacerbated their

dissatisfaction and ultimately led to patients being left dismissed (Hur & Kang, 2021). For this reason, it is suggested that communication competency is a necessary ability for those in the nursing profession (Kwame & Petrucka, 2020).

The differences in demographics, language and cultural origins, beliefs, and worldviews on health and illnesses, attitudes held by nurses, patients, and caregivers can have an impact on communication between nurses and patients as well as the quality of care. For example, cultural and belief system discrepancies between nurses and patients have been found to constitute obstacles to therapeutic communication and treatment (Al-Kalaldeh et al., 2020). It's crucial to communicate nonverbally. High amounts of procedure-related touch and low levels of comfort- or affection-related touch are characteristics of the intensive care unit. Patients' thresholds for contact vary, which may be influenced by their cultural upbringing and personal experiences (Verma et al., 2022).

However, behaviours on the part of nurses can also have a significant impact on the quality of treatment and communication in the nurse-patient relationship. Patient disclosures, treatment results, and nurse-patient interactions are all impacted when nurses treat patients with disregard, verbally abuse (such as yelling at or scolding them), and discriminating against them based on their socioeconomic position (Al-Kalaldeh et al., 2020; Madula et al., 2018). Communication between nurses and patients can be difficult when nurses are unwilling to listen to patients' feelings and anxious expressions. Patients may experience worry, discomfort, and a lack of trust in nurses when nurses deny them the opportunity to express thoughts and participate in their care planning. This can lower patient satisfaction with the treatment received (Al-Kalaldeh et al., 2020). Additionally, nurse-patient communication and patient-centered care practices suffer when nurses ignore the worries of patients and caregivers, compel patients to follow their rules and directions (Amoah et al., 2019), or neglect to offer patients the information they require.

A tremendous workload, little free time, inadequate pay, and a lack of staff can cause some nurses to experience emotions of hopelessness, emotional detachment, and indifference toward their work. These conditions can result in low self-esteem or a negative self-image, which can influence interactions between nurses and patients (Yoo et al., 2020).

Methods adopted to improve the communication among health care workers and conscious intubated patients

In order to build humanized ICU care, one of the most crucial tasks is to evaluate the needs and experiences of patients (Leong et al., 2023).And the more challenging part of providing care for conscious intubated patients is coordinating nursing care and performing intricate tasks, where patients are unable to express their needs verbally.Evidence-based methods and instruments for helping critically sick patients who are awake and unable to communicate are still not routinely used in all contexts(Happ, 2021).

Some findings suggest that a range of accessible communication tools might potentially be used to improve care for 50% of conscious intubated patients(Modrykamien,2019).Despite the availability of a number of tools, such as tracheostomy speech valves, pen and paper, communication boards with an alphabet or electronic and manual pictograms, above-cuff vocalization, and more, there is no consensus regarding the most practical or effective communication aid for patients undergoing mechanical ventilation (Carruthers et al., 2017; Kuyler & Johnson, 2021).

Although effective communication techniques have the potential to improve the long-term health outcomes of ITU survivors, their use is not very common in critical care settings due to potential barriers. Even in situations where written or nonverbal communication is feasible, it rarely occurs quickly and in a timely manner (Happ, 2021).

There are plenty of communication tools available to communicate with conscious intubated patients which are commonly known as Augmentative and alternative communication (AAC). The term Augmented Alternative Communication (AAC) refers to communication strategies that can be utilized in addition to standard speech and writing approaches when these are compromised. In other words, for those with communication disabilities, augmenting or replacing speech with nonverbal forms of communication is known as augmentative and alternative communication, or AAC (ASHA, 2018;Augmentative and Alternative Communication (AAC), n.d.).AAC encompasses assisted approaches ranging from low AACs like pictorial charts to the most advanced High AACs like computer technology which are now available to make communication easier alongside the unaided systems like signing and gesture.

AAC can be used as an augmentation to speech that is already present, as an alternative to speech that is nonexistent or nonfunctional, or as a temporary measure when patients in care setting (Elsahar et al., 2019).

The different types of available AACs are enlisted in table 1.

Table 1 *(Types of Augmentative and Alternative Communication tools.)*

No technology AAC tools:	**Low technology AAC tools**	**High technology AAC tools**:
Gesture Sign language like thumbs up or thumbs down for Yes or No Nods, Facial expressions, Purposeful look and handshake	Communication boards/cards/ images/ books Alphabet board Symbol board Pen and Paper	Speech generator; Eye controlled assistive technology Electrolarynx Specific software Tablets Tracheostomy tubes (fenestrated) with inflated cuff (speaking tracheostomy tube); Speaking valve

Benefits of communications methods adopted are as follows

Studies have propounded that it is possible for awake intubated patients to use various communication tools, which could facilitate communication and lessen patients' anxiety and widespread use of aided communication techniques is necessary to enhance communication in these patients (Hosseini et al., 2018).

Following are the benefits observed in different studies with improved communication using different types of communication devices.

1. A rise in communication frequency and constructive communication practices (Happ et al., 2014);
2. Enhanced ability to manage pain and other issues (Happ ,2021)
3. Easier communication ways for patients and health care providers using AAC techniques (Happ, 2021).
4. Improved communication is one of the cornerstones of patient safety (Carruthers et al., 2017).
5. AAC techniques work well, helping patients feel more satisfied and have fewer communication problems (Mobasheri et al., 2016).
6. Maintaining good lines of contact with conscious intubated patients is crucial to raising the standard and security of the treatment given (Carruthers et al., 2017).
7. AAC techniques reduce stress and raise satisfaction levels (Hosseini et al., 2018).
8. The usage of AAC techniques was associated with useful nursing staff behaviours, such as allowing patients to use the various AACs; improving pain management while minimizing the requirement for sedation; and strengthening interaction by enabling patients to communicate and express demands (Nilsen et al., 2014; Neelavathi,2021; Ju et al.,2021).
9. Good communication shortened the time of the ICU stay and improved patient recovery (Zaga et al., 2019; Modrykamien,2019).

Many studies have found that for the patients in intensive care units on mechanical ventilation, Alternative and augmentative communication methods, both high- and low-tech, are widely employed with proven benefits. However, in order to support significant patient-centred clinical outcomes, communication needs must be systematically assessed and communication interventions must be put into place (Kuruppu et al., 2023).

Also, it must be considered that communication tactics ought to cater to the specific communication requirements of each patient, considering factors like age, gender, degree of sedation, cognitive and psychological state, and amount of time needed for device training (Freeman-Sanderson et al.,2019; Duffett, 2017).

Thus, for the best use of AACs for better patient outcomes a scoping review by Kuruppu et al., (2023) showed five key patternsfor consideration:

1. Nurse and patients' participatory approach in designing of augmentative and alternative communication tools,
2. The training needs of patients and healthcare professionals to use AACs,
3. The application of accepted techniques for communication evaluation before use of AACs,
4. The amalgamation of multiple communication methods/approaches, and
5. The high-tech augmentative and alternative communication technologies demand technical proficiency.

Addressing the five key points while using AACs will help health care practitioners to adjust the way they communicate with conscious intubated patients, which may be linked to a reduction in the amount of time patients spend with intubation in a care setting (Holm et al,.2021).

Every benefit comes with meticulously considering the important details of the techniques used. It is more so when patients are at their lowest with no or minimum capacity to communicate their needs. Clinical carers should consider patient centric approach while using the desired types of communication devices.

CONCLUSION

This review has a broader approach and is undertaken to comprehensively map the impacts of communication difficulties faced by conscious intubated patients on the health hazards.

Deeper insight on the communication difficulties based on the Berlo's communication model shades light on the reasons of break in the communication process. The chapter highlights the available communication aids in clinical practice namely the AAC tools for such patients. The advantages of utilizing these tools are emphasized in order to gain a better understanding of what, who, and how AAC tools are used in the critical care environment.

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