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Communication in Surgery for Patient Safety

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Abstract

One of the cardinal pieces of the Hippocratic Oath is “do no harm”; yet, even in the very best of contexts, errors, at times fatal, do occur as was reported by the Institute of Medicine. Surgical procedures are known to cause the majority of serious adverse events. The Joint Commission report indicates that 60% of serious adverse events are caused by the lack of physician-patient communication. Some of the factors that make surgical processes prone to medical errors include the number of steps and people involved and the fact that the interventions intended for the healing are often in themselves invasive and can also complicate. The involvement of more than one discipline and individual requires communication that is clear, understandable, culturally sensitive, and contextually relevant. One of the center pieces of quality care is its patient-centeredness. This refers to providing service that is not only respectful but also responsive to individual patients involving them in the decisions, ensuring their values and preferences are taken into consideration. It also demands that the care giver provides the patients with relevant and understandable information to enable them in the decision-making and make informed choices.

Keywords: trust, vulnerability, communication, patient safety, quality of care, patient-centered, medical errors

1. Introduction

The doctor-patient communication can be said to have evolved over the centuries from that of paternalistic, to a collaboration that is more patient-centered [1]. In the history of medicine, the sociolinguistic structure of communication by doctors often maintained a style of high control, which Veatch in 1972 termed priestly style of doctor-patient relationship

[2, 3]. It has been noted that this high-handed or authoritarian style of communication leads to increased medical errors just as was observed in the aviation industry [4]. The Joint Commission sentinel data reports indicate that lack of communication is responsible for 60% of the adverse events [5]. A number of studies have highlighted the critical part communication plays both in the operating room and in the overall management of surgical patients [1, 3, 6]. A number of researches have highlighted the ways to communicate and the gaps in communication and why failure is more likely in surgical context [3]. This chapter aims to review the literature in communication from around the globe and to contextualize them into the developing world. This is because contexts differ, and similarly, infrastructure and culture may also differ.

2. Communicating with the surgical patient

Communicating with a surgical patient is unique in many ways since it will not only involve discussing the diagnosis and surgical management but also communicating with the team to care for the patient perioperatively. The central person and the team leader in these communications remains the surgeon. Communication can be defined as a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior [7, 8]. This implies that at times, communications may not be effective not because the originator did not have the message but because something went wrong within the process of communication.

In this section, we will look at

- The communication processes
- Communication models
- Communicating with the patient
- Communicating with the team of care

2.1. The communication processes

In many books of communication, about 10 components in the communication process are emphasized. The steps include source, encoding, message, noise, media, receiver, decoding, receiver response, and feedback within a context.

The communication process involves the source, in this case, the surgeon or the trainee or the health care worker who wants to communicate with the receiver—the patient. Humans do not often share thoughts directly like computer gadgets. Therefore, the intended message ought to be encoded in ways that should be understandable by the receiver who would also need to decode it. Encoding is an active process of putting the thought into symbols which could be spoken words or unspoken symbols [9]. The receiver would assign meaning to symbols in another active process of decoding. The thoughts are encoded to a product called message,

which is the intended thought you want the receiver to get [10]. The interface by which the source passes the encoded thoughts (message) to the receiver is media. This interface can get interference called noise that could be either external, internal, or semantic noise. External noise includes those issues that are outside of self that will distract from concentration. For example, reading while the television set is on. Internal noise includes thoughts, feeling, and conditions within an individual that could interfere with his or her concentration—for example, fatigue, hunger, and anger. Semantic noise includes the alternative ways in which the message could be decoded. Response could be action or inaction intended or not intended by the source's message; feedback then is what makes the source to acknowledge that communication was successful. Without feedback it would be difficult to know whether one has communicated successfully [8]. The context of communication and sitting arrangement matters a lot; the amount of light in a consultation room will help put the patient at ease. Culture as a component of context will be explored in the next section.

Awareness of the process and the pitfalls that could occur during communication is important. The physician-patient relationship has always been personal, so the media for better understanding would be face to face. The physician must set the environment that would enable successful communication including when family members are required—meaning many receivers. A key challenge is that surgery is a team work, and in any team work, communication is a core competency. Without clear, concise, brief, and timely “closed” communication, there would be confusion on goals, expectations, timing, and roles of each team player [11].

2.2. Communication models

Models of communication may help one understand what communication is and how it is performed:

- i. Transmission model, where communication is a means of passing ideas from one person or organization to the other. Effectiveness is evaluated in terms of being able to manipulate others to the goal of the person communicating [6].
- ii. Transactional model, where the source understands the receiver well enough to incorporate that knowledge in the encoding of the message such that the exact same words can be spoken to diverse audience with different meanings [6].

There are cultural modifications of these models. While the transmission model may appear to indicate superiority of the source, with a passive listener, some cultures tend to indicate the role of listener as critical in communication.

In Confucius culture, just as in cultures with high-power distance and are collectivistic, harmony and balance through proper behavior are highly regarded in such a way that:-

- a. A particular age determines how you communicate. In African culture, like Swahili, greetings differ with age—the young will use ‘shikamo’. In Korean culture, terms of friendship differ with age—peers use ‘chingu’, younger on older people use ‘adjussi/adjumoni’ for male and female, respectively [8, 12].

- b. A third party may be used to avoid confrontation with those respected. In African culture, this is seen in dowry negotiations [8].
- c. Reciprocity is the basis of most relationships, which creates in a group deeper relationship where at times personal and business issues cross over, and is common in Confucius cultures [8].

In communication to the patient in a global village, and even within a country, one must be culturally sensitive. Cultural competency has been defined as the ability of providers and organizations to effectively deliver services that meet social, cultural, and linguistic needs of the patient.

The surgeons therefore must understand the culture and the language in which they practice and the meaning of both spoken and unspoken words in the culture to effectively develop a healing relationship with their patients. In order to heal, one must get into the world of the patient. This will enable them to empathize with them and help them understand their disease better in their own sociocultural context so as to help them overcome not only the disease but the illness as well [13].

In the intercultural communication, one must be sure to understand the different cultures and their emphasis; in medicine, one must understand the ethics practiced in different cultural contexts. Ethics then guides how one communicates. May and Sharratt identified four values in Western ethics namely autonomy, justice, responsibility, and care [14]. Menkiti identified African ethics to stress the well-being of the community and economic over political rights [15]. Other cultural values are more bent on the religion of the individual. Kales theory is that peace is the fundamental value interculturality; hence, ethical communicators ought to maintain that peace through respectful communication, not deliberately misleading, exercising the right to express one's self and identification with other cultures [16].

Several approaches for effective intercultural communication have been identified that include:

- a. Business approach—maintenance of self, fostering relationship with the host, and promotion of correct perception of the environment [17]
- b. Military approach [16]
 - Self-respect—self-confidence
 - Self-awareness—understanding how others would view the other
 - Empathy—viewing things through another person's eye
 - Adaptability—ability to adjust to different environment
 - Interaction—ability to effectively communicate with others
 - Certainty—ability to accept contradictory situations
 - Initiative—being open to new situations
 - tolerance

- c. Communication approach—respect for and tolerance of other cultures through four skill areas [16]:
 - i. Personality strength—which involves knowing oneself, initiating a positive attitude, and being friendly through
 - self-concept—how one views themselves
 - self-disclosure—willingness to openly and appropriately reveal information about themselves
 - self-monitoring—using social information to control and modify self-presentation and expression
 - social relation—ability to reveal little anxiety about communication
 - ii. Communication skills which involve being able to encode messages for people in diverse environments, interacting with them respectfully with flexibility [16].
 - Message skills—ability to understand and use language and feedback.
 - Behavioral flexibility—ability to select appropriate behavior in diverse situations
 - Interaction management—a person’s other-oriented ability to initiate interactions, attentiveness, and responsiveness.
 - Social skills—involve empathy and identity maintenance where one is able to put themselves in the others person’s stead—similar feelings and being able to give feedback that commensurate with the counterpart’s identity.
 - iii. Psychological adjustment—acclimatize to a new environment and cope with frustration such as stress and alienation (in ambiguous situations).
 - iv. Cultural awareness.

2.3. Communicating with the patient

Communication between the physician and the patient can take the usual form of patient interview which comprises

- i. information gathering and diagnostic formulation
- ii. patient education
- iii. shared-decision making
- iv. delivering bad news

The outcome of the therapeutic encounter is dependent on effective communication; the communication begins with engaging the patient and involves being empathetic to the patient and family [18]. These two components are therefore the milieu that makes the four aspects mentioned above possible. The Institute for Healthcare Communication developed a communication for healthcare curriculum that mainly teaches 4-Es of communication, namely

engage, empathize, educate, and enlist. In this section, we will consider more beginning with setting the environment right [19–21]. The Kalamazoo consensus added more that included building the doctor-patient relationship, opening the discussion, gathering information, understanding the patient’s perspective, sharing information, reaching agreement on problems and plans, and providing closure [22].

2.3.1. *Setting the stage*

While the Institute for Healthcare Communication curriculum combines “engage” with “information gathering” for diagnostic purposes, “setting the stage for communication” should be treated differently [21]. The setting the stage for communication requires that the surgeon removes every distraction to help them focus on the patient, and it could have several components. It includes setting aside the phone, good posture that is upright and open, and a sitting position that is below the patient’s eye level so as not to be threatening. There should be lighting in the consultation room. First impressions communicate many things, majorly the attitude of the individual. How we present ourselves to patients is critical in making the favorable first impression that can lead to a trusting partnership between the surgeon and the patient [23]. A smiling face, warm greeting that is coupled with introducing self and any other person in the room, and firm greeting or social touches will give an impression of openness and trustworthiness.

2.3.2. *Information gathering*

Having set the environment, the patient is engaged by eliciting the reason for the visit; this is usually done by open-ended questions. The patients should be allowed to tell their own story without interruption as one uses verbal and nonverbal cues to indicate active listening and keen interest in their words. Patient’s story often should help in diagnostic formulation as well as their concerns, fears, and the impact of the disease in their life. They must be allowed to speak freely. The biomedical is the norm, but the patient should be looked at as the whole person.

The patient often has more than one concern; to avoid “doorknob syndrome”, the provider needs to engage the patient to put all their agenda on the table [1]. This will help in prioritizing the agenda of the patient during this visit. Having stated the agenda, the surgeon can then clarify the agenda and summarize them as well. The physician, after listening to patient agenda, should agree with the patient on the agenda and also state what he intends to do [24]. Once the agenda is set, the patient is then allowed to tell the full story, and helped along using facilitative comments such as

- “tell me more”
- “Go on”

A good consultation skill is not just about history taking as learned in textbooks. A good history will include patient’s ideas, concerns, expectations, and diagnosis. While it is important

for the doctor to lay his agenda too, it should not be dominating the history taking. Listening and getting patient perspective is at the heart of good history taking. A true account of a patient's concern and how it has evolved over time requires practice, patience, understanding, and concentration. History is a sharing of experience between patient and doctor [25]. A consultation can allow a patient to unburden himself or herself.

2.3.3. *Empathize*

The ability to connect with the patient in a deep sense, pay attention keenly, and listen are central in clinical practice leading to patient trust in the physician and satisfaction of both the patient and the doctor. Empathy is the ability to understand the patient feelings, situation, and perspective and to communicate to the patient that one truly does understand. Done well, it helps promote diagnostic accuracy, therapeutic adherence, and patient satisfaction, while remaining time-efficient. Certain words facilitate empathy when used at the right time [26].

Empathy has cognitive, affective, and action components. The cognitive component requires the surgeon to "enter into" the perspective and experience of the patient by using verbal and nonverbal cues but does not lose own perspective or collapse clinical distance. Emotional component requires resonant feelings and the action required is the feedback. The surgeon could use statements such as "Let me see if I have this right" or "I want to be sure I understand what you mean." It helps give the patient a chance to correct but also connect and reinforces the bond between the surgeon and the patient [23].

Sympathy requires that the congruent feelings between the patient and the physician, while empathy does not. Even when patients are disagreeable, culpable, or unlikable, the surgeon can still empathize with them.

Barriers to empathy include time constraints, medical jargon, missing clues, and blocking behavior by the physician. Active listening means listening to and understanding the patient. The patients will give clues to their distress and the impact of their experience of illness; if we fail to acknowledge these clues, patients will repeat them that means prolonged patient visit and they will perceive us as "not listening, not caring, or in a rush." It is a good practice to have several empathic stems to use to allow one to fill in the blanks with the emotion or feelings witnessed [27]. The stems could be queries, responses, or clarifications. Such as:

i. Queries

- "Would you (or could you) tell me a little more about that?"
- "What has this been like for you?"
- "Is there anything else?"
- "Are you OK with that?"
- "Hmmm"

ii. Clarifications

- “Let me see if I have this right.”
- “I want to make sure I really understand what you’re telling me. I am hearing that.”
- “I don’t want us to go further until I’m sure I’ve gotten it right.”
- “When I’m done, if I’ve gone astray, I’d appreciate it if you would correct me. OK?”

iii. Responses

- “That sounds very difficult.”
- “Sounds like ...”
- “That’s great! I bet you’re feeling pretty good about that.”
- “I can imagine that this might feel ...”
- “Anyone in your situation would feel that way ...”
- “I can see that you are ...”

One serious issue why surgeons hardly empathize is the blocking behavior that could be done by offering advice or reassurance before the main problems have been identified, explaining away distress as normal, attending to physical aspects only, switching the topic, and “jolly-ing” patients along [23, 26, 27].

2.3.3.1. Case scenario

The story: A 22-year-old girl was taken by her parents to see a general surgeon for breast lump. Her history did not indicate any risk but given the surgeon had just dealt with a 24-year-old lady with breast cancer, the surgeon preceded to perform mastectomy based on FNAC (core biopsy was then not readily available and was not the norm). The histological result of the mastectomy indicated fibroadenoma.

The patient’s outcome: re-evaluation revealed that the history and examination did not align with FNAC and the surgeon should have asked for core biopsy. It is also possible that the pathologist mixed up results. The patient’s parents filed suit against the original surgeon.

What went wrong? Cognitive bias and ignoring patient history and distraction from the previous patient made the surgeon to diagnose what was not there.

2.3.4. Patient education

One study comparing primary care physicians with surgeons showed that surgeons spend more time emphasizing patient education and counseling [28]. Given the complex intervention and the chances of complication, surgeons get involved in patient education so as to get informed consent. Unfortunately, much of the explanation is done through medical jargon, monolog without an attempt to seek the comprehension of the patient.

Other barriers to patient education are time pressure, language barrier, and limited health literacy [23, 27, 29].

Patient education is core to the two things for the surgeon namely, informed consent and shared decision-making, which are discussed in the next sub-section. The aim is to improve health literacy including knowledge and skills that are conducive for individual survival. It is performed in clinical setting and its goals are related to patient assessment, diagnosis, prognosis, evaluation, individual needs, and requirements related to interventions. The patient should receive education and training that is specific and appropriate to care, treatment, and service provided. It should be personalized to each patient depending on cultural differences, specific needs, and level of education [30].

At times, we try to force-feed the patients without assessing their understanding. Some of the strategies that have been suggested include “Ask me 3” from the National Patient Safety Foundation [31];

- What is my problem?
- What do I need to do?
- Why is it important for me to do this?

What is important is to break down the information in portions that the patient can understand, avoiding medical jargon, and using teach-back method to assess their comprehension. For example, instead of using 60%, use “6 out of 10”.

The benefits of patient education include [30]

- i. Patient assumes better responsibility for their own health care and ability to manage their own illness
- ii. Provides opportunities to choose healthier lifestyle
- iii. Increases patient satisfaction with their care, decreases providers risk of liability.
- iv. Provides patient-centered care and as a result, patient’s active involvement in their plan of care.
- v. Increases adherence to treatment regimen, more efficient and cost-effective health systems.
- vi. Ensures continuity of care, reduces complications related to illness.
- vii. Maximizes individual independence with possible home care and plans.

2.3.5. Shared decision-making

This involves asking the patient to be involved in making the decision about his or her treatment. It involves discussing candidly all the options of treatment, including not treating at all, their merits, limitations, and complications. This, however, should be done respectfully and in

an appropriate language and manner. It will also involve discussing patient values, preferences, and the best medical evidence that supports the treatment options in a language and respectful, empathic manner. The barrier would be patients' desire to be involved, physician knowledge of patient preference, and physician willing to explore patient concern and preferences [32].

The application of communication models is seen in decision-making in surgery where there are three ways namely, paternalistic model, informational model, and shared-decision making model. All these models have their merits and demerits and can actually be used by well-meaning surgeons. In the paternalistic model, the surgeon makes the decision and the patient accedes. This model best works in emergency situations. It leaves the patient uninformed, assumes that the patient preferences are aligned to the physicians, and leads to low adherence, less engagement during recovery and dissatisfaction with likelihood or litigation if untoward outcome occurs [33]. Informational model is where the physician will give only the information and let the patient decide. It assumes the patient is able to process and take into consideration their preferences. However, it has been noted that most patients are not able to process the information, and that given the emotions involved in sickness, some may even shut down because of information overload. Furthermore, often the physicians may give biased information. Shared decision involves giving information, hearing from patient and both parties participating to ensure understanding of patient preferences, and aligning the physician and patient. It also involves assessing patient judgment [34].

The traditional style of paternalistic communication may not welcome patient's input and the patient may also fear being labeled as a 'difficult' patient. But the reward will be that when patients understand their diagnosis, the implication of treatment, and possible outcomes, they would own the process and would adhere to treatment protocols [33]. Many other things could affect adherence and include social support, financial concern, and communication with the doctor. It may therefore call for exploring the social support and enlisting family or other important people in their lives. In some cultures, such as Africa, some of the decisions will have to be family-based.

Several factors may influence patient choice, including information from physician, from family, from internet, and other media sources. The physician can also be influenced by the industry, recommendation made previously that may not be useful for the current illness or articles read with evidence. Certain patient personalities may also be barriers to shared decision-making; there are patients who will leave the decision to the physician—they prefer minimal information, others may prefer information only. The physician may also fail to provide a conducive environment when they discount patient preferences and concerns. Other barriers include time constraint and physician attitude—some may feel shared decision-making is not necessary. The physician must ensure the information given is of right quality (understood) and quantity (not overwhelming) [32].

The patient perspective while making decisions may be fourfold. They may feel the decision is obvious and can be done immediately or feel overwhelmed and defer it to someone else or just require time to process and they may require more information to make the decision. The surgeon must allow the patient time and space to go through the motions. Though it may take time, once shared decision is made, the process will be long and compliance will be total [32].

2.3.5.1. Case scenario

The story:

Ms. Rono presented to a health clinic for assessment for a job. When the physicians perform examination, he finds a 1 cm × 1 cm lump on the right upper outer quadrant. A mammogram indicates it is BIRAD 4c. He refers the patient to Dr. Otieno, the breast surgeon. Dr. Otieno confirms the finding and begins talking to Ms. Rono, taking history and performing physical examination. Dr. Otieno gets to know Ms. Rono's preference, interest, and life plans. Dr. Otieno incorporates this knowledge into subsequent discussions about choices for medical treatment.

Although it may seem a straightforward decision of biopsy on a palpable lump, Dr. Otieno needs to consider age, physical condition, and whether she would be able to undergo the treatment based on the results of the biopsy. Equally important would be whether Ms. Rono would want any treatment if the biopsy revealed a malignancy.

The process should proceed in this manner.

Discuss the risks associated with biopsy. Dr. Otieno should discuss the risk of biopsy itself that includes infection, bleeding, and cosmetic consequences of the scar. He should ask the patient questions about her concern and preferences that may arise from her own research or information from family, friends, and media. Address these concerns at this time.

Determine whether the patient is competent to make decisions. This is often determined based on the ability of the patient to understand the information and situation awareness, weigh options, and make and communicate their choice. For Ms. Rono, this includes her circumstances of coming for check up for a job but now has a new diagnosis. If Ms. Rono is not competent, then Dr. Otieno should seek out her durable attorney and discuss with her. The capacity to comprehend is assessed by using teach-back method.

The patient's outcome:

Ms. Rono and Dr. Otieno make shared decisions to proceed with the biopsy. The biopsy turns out to be positive for breast malignancy.

Dr. Otieno's subsequent talks with Ms. Rono require being comprehensive and includes patient's preferences and concerns. He should give her options of treatment without surpassing her capacity to understand. The patient potential circumstances should be considered as she is offered breast conserving surgery (BCS) versus mastectomy. Can the patient access and afford radiation after the BCS?

Most patients take time to make a decision and will take more than one visit. The informed consent and shared decision-making process take time as patient looks for more information and do further consultation of family and friends. Decision aids such as pamphlets will be important because she can review the information when she feels she is not under stress.

The informed consent should be performed by the person doing the procedure or understands the procedure. It should include indications for procedure, steps of the procedure, potential

complications, benefits of the procedure, options and complications of the alternative procedures, and risk of not doing anything. Finally, the patient competence and understanding should be assessed. The core principles of informed consent are that it is not the paper that matters but the process of involving the patient [33, 34]. It is therefore an opportunity to help the patient come to shared decision rather than obligation for the surgeon. It is very helpful as a first step of disclosure should something go wrong and applies to all medical treatment.

Surgeons should be transparent and truthful about their experience and the data that are available when a patient asks for risk of complications of procedures without being too detailed in order to help patients in decision-making about their care. The physician should help the patient interpret data that is available in broad terms as was suggested above [32].

Ms. Rono is choosing whether to undergo mastectomy, or BCS, then radiation. Dr. Otieno should understand Ms. Rono's preferences. It is possible that Ms. Rono is most interested in pursuing the treatment that is likely to leave her with a breast rather than understanding slight differences in 5-year recurrence rates. Dr. Otieno needs to elicit these priorities during the conversation about surgical options. At the same time, if Dr. Otieno is excited about a new surgical modality, like BCS, he needs to be truthful about what the data say and his own experience with the procedure.

2.3.6. *Delivering bad news*

The "news" to the patient after clinical assessment or investigation is potentially bad news. Buckman defines bad news as "any information which adversely and seriously affects an individual's view of his or her future" [35]. However, it is the patient who knows what they consider as bad news. The impact of bad news can only be determined after the recipient's expectations and understanding are known. Ms. Rono's biopsy results could cause her shock given she did not go with the knowledge of the lump to the doctor.

Sharing of bad news can be difficult for the doctor based on certain factors such as fear of being blamed for the bad news, fear of arousing strong emotions or causing pain, uneasiness with their inability to make the disease go away or to answer all the patient's questions, difficulty in facing death, and discomfort arising from the fact that they simply do not know how to carry out the task well [35].

Sharing bad news is frequent and stressful but it is what needs to be done because patients require knowing the truth about their diagnosis and prognosis. This needs to be handled sensitively and sincerely. The practice of deception cannot instantly be remedied by a new routine of insensitive truth telling [36]. The way bad news is discussed can affect the patient's understanding of information, satisfaction with medical care, level of hopefulness, and subsequent psychological adjustment [35]. As much as many patients desire accurate information to help them make important quality-of-life decisions, some may find it threatening and may get into denial or minimizing the significance of the information while continuing with care.

The goal of breaking bad news is fourfold, firstly, to gather information on what the patients know, their readiness, and their expectations; secondly, to provide appropriate information

according to patient needs, expectation, and desires; thirdly, to support the patient by reducing emotional impact and isolation experienced by the patient; and finally, to formulate treatment plan in shared decision model.

This can be done in six steps [36].

a. Setting up

- i.** The patient and relatives if present require a setting that would be private and if possible have tissues in case patient is upset.
- ii.** It is important that the patients have relatives or friends comfortable to accompany them during these discussions.
- iii.** Posture and sitting arrangement should be ones that help calm the patient and makes them relax.
- iv.** Eye contact, holding the patient's hand, or any social touch may help make connection with the patient.
- v.** Ensure there are no possible interruptions within the time.

b. Assessing patient perception.

Before discussing medical findings, clinical or investigations, the clinician should use open-ended questions to create a reasonably accurate picture of how the patients perceive their medical situation.

- i.** "What have you been told about your situations so far?"
- ii.** "What is your understanding of the reason we did the mammogram?"

This information can then be used to correct any misinformation and contextualize the bad news to the patient's understanding. It may also help to find out if the patient is in denial either through wishful thinking or omission of essential but unfavorable details or unrealistic expectations.

c. Obtaining patient invitation.

Although most patients desire full information about their diagnosis and prognosis, some may not. Expressing desire for the information may place the surgeon at ease, and shunning information may indicate a coping mechanism and may be a sign of severity of illness. The surgeon may prepare the patient at the time of ordering the test by asking

- i.** "How would you like me to give the information about the test results?"
- ii.** "Would you like me to give you all the information or sketch out the results and spend more time in planning the treatment?"

In case they do not want details, the surgeon can offer to answer any question they may have in future.

d. Giving patient information

Words that express some form of warning before the bad news is given may prepare the patient, lessen the shock, and help in processing the information. This may be expression such as

- i. “Unfortunately, I have some bad news to tell you”
- ii. “I am sorry to tell you that ...”

Give medical fact by knowing the level of understanding and using correct vocabulary. Avoid excessive bluntness that may leave the patient isolated and later angry with a tendency to blame the surgeon—such language as—“your cancer is very bad and if not treated immediately you are going to die”. Give information in small portion, check patient understanding at every step, and finally, even if prognosis is poor, avoid using phrases that discourage such as ‘there is nothing we can do for you’, because the goal of pain and symptom relief is still options.

e. Being empathetic

This has been addressed above, but for emphasis, patient emotional reactions may vary from silence to disbelief, crying, denial, or anger. The physician can offer support by giving empathic response in four steps.

- i. Take the cues that may include sadness, silence, or crying
- ii. Confirm the emotions with the patient by open questions
- iii. Confirm the reason for emotion, mostly connected with bad news
- iv. Let the patient know you understand why they could be sad.

f. Strategy and summary

A clear plan and strategy may make the patient less anxious and more certain. However, the treatment options should be discussed with the patient who is ‘available’ emotionally. If the physician continues, it may appear like the physician’s preferences are more important than patients. Shared decision-making model engenders shared responsibility and reduces sense of failure when treatment is not successful. Ensuring the patient has understood, documenting the finding, and recording all that is said and done are important.

3. Communicating with the team of care

Surgery is a complex procedure that involves the patient, surgeon, anesthesiologist, nurses, technician, and relatives and for complete care of patient: nutritionist, physiotherapist, internist, radiologist, pathologist, radiotherapy experts, and many more. This complexity begins from the time the patient is admitted from outpatient, through ward, operating room, postoperative acute room, and back to the ward and follow up. It is this complexity that could lead

to medical error as a result of miscommunication. The Agency for Healthcare Research and Quality (AHRQ) developed tools for communication among the surgical team that aligns the surgical care well. This is called TeamSTEPPS [37].

The tool begins with at the structure of communication. The structure is called multi-team system for patient care. Team is defined as two or more people who interact dynamically, interdependently, and adaptively towards a common and valued goal, have specific roles or functions, and have a time-limited membership [37]. The core team is a group of care providers with the closest contact with the patient. They work interdependently to manage patients from point of assessment to disposition. In the case scenario of Ms. Rono, this would include Dr. Otieno, surgical resident, intern, and the ward nurse. Contingency team is a time-limited team formed for emergent or specific events and composed of members from various teams. This will be the operating room team or the code blue team: a team comprising members are responsible for managing the operational environment that supports the core team. Ancillary Services provide direct, task-specific, and time-limited care to patients while also support services provide indirect service-focused tasks which help to facilitate the optimal health care experience for patients and their families. This includes nutritionist, physiotherapist, and social workers [37].

The role of administrators is to establish and communicate vision, develop policies, and set expectations for staff related to teamwork, support and encourage staff during implementation and culture change, hold teams accountable for team performance, and define the culture of the organization. The patient is as the apex of the pyramid, indicating every team is involved in taking care of the patient (**Figure 1**).

The team structure is important because it identifies individuals among which information must be communicated, designates leaders, and mutual support is sought. In a complex scenario such as this, between-team communication and within-team communication about tasks and processes are important. Effectiveness of teams can be sabotaged by factors that are described by Lencioni in his book: *The Five Dysfunctions of a Team*. This includes inattention to results, avoidance of accountability, lack of commitment, fear of conflict, and absence of trust [38]. Therefore, team leadership with concomitant effective communication is key to patient safety in such context.

In this complexity, effective communication serves as the coordinating mechanism for the teamwork and is the lifeline of a well-functioning team. The skills to communicate effectively are essential for patient safety and are the mode by which most of the tools for TeamSTEPPS are executed. The sentinel event data reported by the Joint Commission between 1995 and 2005 indicate that ineffective communication was the root cause of 66% of the errors reported. The data from 2010 to 2013 indicate that ineffective communication remain among the top three causes of sentinel events [5].

Failure of communication within the team or department leads to failure to share information with the team, failure to request information from others, or direct information to a particular member of the team and also failure to include patients and their families in communication involving their care. This will be indicated by poor documentation, that is not timed,

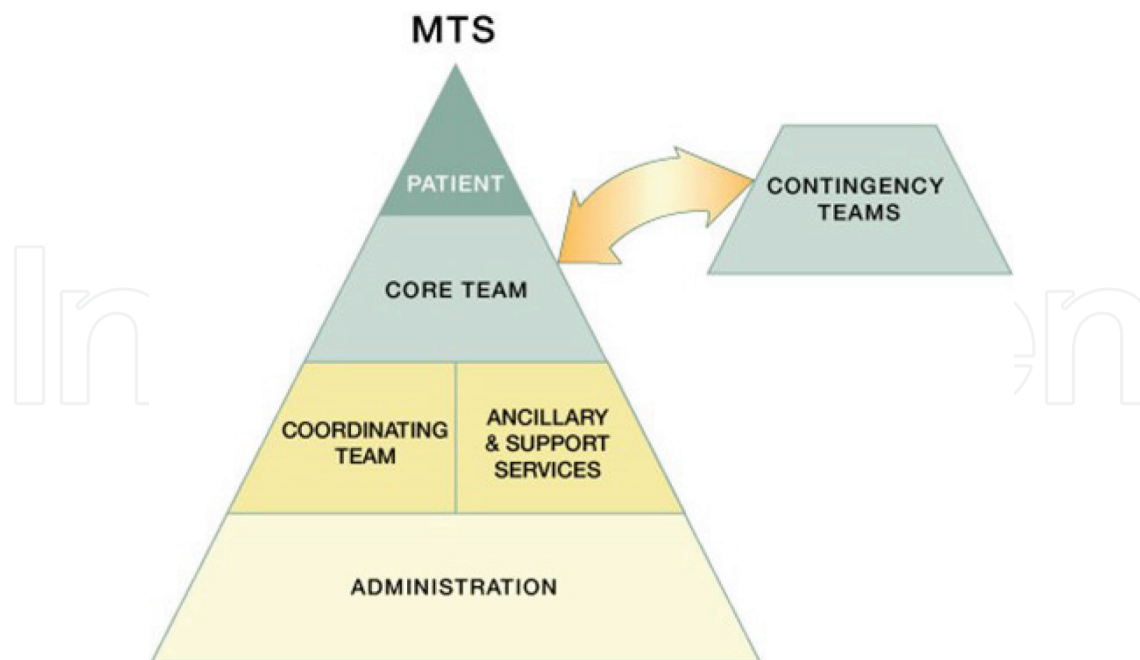


Figure 1. Multiple team systems.

nonspecific, and incomplete and failure to seek input from the patient. In case of automated systems, it will also lead to inconsistencies in the utilization of the system [37].

Effective communication is complete, clear, timely, and brief. Complete means communicating essential information without giving details that may cause confusion and letting the receiver have an opportunity for clarification. Clear information is one that uses plain language that can be understood by patients and relatives or standard terminologies understandable to every healthcare provider. Brief means being concise and to the point and timely implies being dependable to offer and seek information, without delays in relaying or getting information that could compromise patient care, recheck, and validate information [37].

Challenges to effective communication include language barriers, distractions such as emergency, distance, and personalities that are difficult to communicate with, heavy workload and varying communication styles, and disagreement which may disrupt flow of information. Lack of verification and acknowledgement of received information and transitions in care of patient can lead to communication breakdown [37].

3.1. Case scenario

Ms. Rono, having been investigated, is now admitted for breast conserving surgery. However, the surgeon who saw her at outpatient is called for an emergency. The trainee assumes that mastectomy would be better without reference to patient or Dr. Otieno, so they perform mastectomy instead of breast conserving surgery.

This scenario is common where there is no clear and effective communication. A number of tools have been developed for communication in varying scenarios. Effective teams are led by

leaders who model communication to achieve team cohesiveness and effectiveness. This leads to better outcomes to the patient's and surgeon's satisfaction. For communication within and between teams to be effective, the leadership must have a style that facilitates it. A surgeon may have a disruptive style of communication that puts the patient at risk of mistakes during procedures. It interferes with cohesiveness and minimizes the chances of juniors raising concerns because the environment is not conducive. There are tools that have been developed to aid teams be effective in their communication, maintain their cohesiveness, and have clear explicit messages understood and accepted by all members of the team. These tools include ISBAR, call-outs, handoffs, and check-backs.

ISBAR is a tool that was developed for healthcare workers to communicate about a patient's condition. It helps organize one's thoughts to communicate clearly and completely [37].

I-Introduce yourself.

S-Situation that has made you call.

B-Background of the patient condition and current status.

A-assessment that has led to the concern.

R-Recommendation for the condition.

3.2. Case scenario

It is post-mastectomy day one for Ms. Rono; her drainage tube is not working well and the mastectomy site is full because of hematoma/seroma. The patient is in pain. The nurse is notified and so she decides to escalate the problem to the surgeon. She would identify herself by her name and state that Ms. Rono has a postmastectomy hematoma; she is a patient who had right sided mastectomy the day before, and currently her drain is not working well. She has examined and found the mastectomy site to be swollen and warm and suggests that another drain would help.

While doing this, the nurse and the doctor can use check-back or closed-loop systems that ensure that the message passed by the nurse is repeated to her by Dr. Otieno and she acknowledges and ascertains the message being passed; this helps in verification of the message. In situation where, for example, Ms. Rono has bled a lot and requires the resuscitation team, the nurse would have to use call-out, which means sending the message to all the members of the team at once. It is a method of sending critical information during an emergent event. The information is used to prepare the team members to anticipate what the situation is and how to act. Usually the team leader may distribute tasks that need to be performed to specific members; the check-back confirms that the team member has received and understood the message [37].

Most of the hospital staff works in shifts, and it has been noted that most of the adverse events occur during this change-over period. If the nurse in the morning had noticed the hematoma and because of distraction had not called and fails to notify his or her colleagues in the next shift, that patient may not be attended to until she requires resuscitation, if the bleeding remains active. To avoid such events, there is a tool used for handoffs, which aims to provide

accurate information about a patient's care, treatment and services, current condition, and any recent or anticipated changes. The information communicated during a handoff must be accurate to meet patient safety goals [37].

Handoff needs to include transfer of both accountability and responsibility, the person assuming responsibility must be aware of what they are assuming, and the person handing over is responsible until both parties are aware of the transfer. It is the responsibility of the person transferring responsibility to clear up any uncertainty and ambiguity. While it is important to write and document the issues about the patients, it is reckless to assume that the person obtaining responsibility will read or understand written or nonverbal communication. Use of checkbacks also does help because it is until the receiver has acknowledged that the handoff is understood and accepted that the responsibility is relinquished. It may also be an opportunity to review the patient with new thoughts both for quality and safety, review the certainty of diagnosis, and patient response to treatment, and recent changes either in plans or response and other contingencies can be reviewed. Handoffs ensure continuity of care for the patient and hence increase chances of better outcome for the patient [37].

One of the tools used is I PASS the BATON mnemonic, which means

- I—The person handing over introduces themselves
- P—They then give a summary of the patient illness including name, identifiers, age, sex, and location.
- A—They detail the assessment, like chief complaint, vital signs, symptoms, and diagnosis
- S—The situation the patient is in currently including code status, level of uncertainty, recent changes, and response to treatment.
- S—Safety concerns—recent lab values and reports of concern, socio-economic factors, alerts, and allergies
- Background—Comorbidities, previous episodes, current medications, and family history
- Action—What actions were taken or are required? Provide brief rationale for the actions
- Timing—Level of urgency and explicit timing and prioritization of actions
- Ownership—Who is responsible (nurse/doctor/team)? Includes patient/family responsibilities
- Next—What will happen next? Anticipated changes? What is the plan? Are there contingency plans.

It is important for the person taking over to verbally question, confirm, and challenge the assumptions of those who take care of the patient at this point. The clinical team leadership for the surgical patient is always the surgeon. The surgeon is therefore expected to model appropriate behavior, share information proactively, defer to expertise or delegate as appropriate, use resources appropriately, provide feedback and coach those he leads, assist team members to manage conflicts, and always act in patient's interest [37].

One of the most effective communication tools that surgical teams have ever used that have reduced medical errors in operative room is the WHO operative checklist. It helps the team of the surgeon, anesthesia, scrub nurse, circulating nurse, and technicians communicate smoothly. Surgical team leaders share information proactively with their teams, using components of the safe surgical checklist including briefings, huddles, and debriefings. They will initiate and ensure that the time-outs are run. They can delegate or defer to experts and currently there is enough information to say that surgical teams who do not use surgical checklist endanger the patient. When it was introduced, the recorded reduction in mortality was 47% and reduction in complication was 35%. Surgical teams who use these skills capture errors before they can cause patient harm and it is the responsibility of the surgeon to ensure that all the elements of the checklist are performed as intended [39–41].

The entire surgical team introduce themselves and their roles before the incision and agree on the surgical procedure, surgical site and preoperative prophylaxis. During the first briefing, the surgeon shares the surgical plan, possible difficulties, expected duration, anticipated blood loss, and implants or equipment needed. The anesthesiologists also share their plan, their airway concerns including equipment. The nursing team shares sterility of equipment issues and other concerns they may have. Debriefing is sign out part that ensures the counts are fine, records are kept of the procedure, specimen is labeled, and a review of what was done in terms of roles, what went well, what should we change, and what can improve. Any error avoided, did we ask or offer assistance and was situation awareness maintained, was communication clear [40].

Within the checklist is included one of the tools that not only help with safety but also quality improvement and that are debriefing (**Table 1**). It should be done by the clinical team leader when everyone is still in the room, after sponge count, specimen is labeled, and procedure identification is done. The surgeon should facilitate the discussion by asking some of the questions above; they could also recap the situation, background, nay key event that occurs and summarize the lessons learnt.

Given the nature of surgery is that of teamwork, it is inevitable that conflict will arise because of differences in clinical knowledge, work approaches, values, opinions, or personality. Conflict resolution is key to delivering safe quality surgical care. Skills for resolving conflict will enhance team effectiveness and improve their outcomes. An effective leader will not allow interpersonal or irrelevant issues to negatively affect the team. They should not avoid but acknowledge and assist the team members to manage conflict with two challenges—CUS and DESC [37].

DESC challenge is a constructive approach of managing and resolving conflict that involves describing the specific situation, expressing your concern about the action, and suggesting alternatives while stating the consequences of the actions. The effectiveness of this method could be maximized by having timely discussion, in a private place, framing the problem in one's own experience and working for the right of the patient, using "I", avoiding blame games, focus on what is right not on who is right, critiquing, and not criticizing [37].

CUS challenge is that for being concerned or need clarity, I am uncomfortable, this is safety issues (I am scared STOP!). These two challenges are useful in raising concern about safety [37].

Before anesthesia	Before skin incision	Before patient leaves operating room
Sign in	Time out	Sign out
Patient has confirmed <ul style="list-style-type: none"> • Identity • Site • Procedure • Consent 	Confirm all team members have introduced themselves by name and role	Nurse verbally confirms with the team: The name of the procedure recorded the instrument, sponge and needle counts are correct (or not applicable) How specimen is labeled (Including patient name).
Site marked/not applicable	Surgeon, anesthesia professional and nurse verbally confirm <ul style="list-style-type: none"> • Patient • Site • Procedure 	Whether there are any equipment problems to be addressed.
Anesthesia check list completed	Anticipated critical events <ul style="list-style-type: none"> • Surgeon reviews: what are the critical or unexpected steps, operative duration, and anticipated blood loss. Anesthesia team: Are there any patient-specific concerns • Nursing team reviews: Has sterility (including indicator results) been confirmed? Are there equipment issues or concerns? 	Surgeon, anesthesia professional and nurse review the key concerns for recovery and management of this patient (Debrief). <ul style="list-style-type: none"> • <i>Communication clear?</i> • <i>Roles and responsibilities understood?</i> • <i>Situation awareness maintained?</i> • <i>Workload distribution?</i> • <i>Did we ask for or offer assistance?</i> • <i>Were errors made or avoided?</i> • <i>What went well, what should change, what can improve?</i>
Does the patient have <ul style="list-style-type: none"> • Known allergies: Yes/No • Difficult airway/aspiration risk 	Has antibiotic prophylaxis been given within the last 60 minutes? Yes/Not applicable	
No/Yes, and equipment assistance available <ul style="list-style-type: none"> • Risk of >500 ml of blood loss (7 ml/Kg for children) 	Is essential imaging displayed Yes/Not applicable.	
No/Yes and adequate intravenous access and fluid available		

Table 1. WHO safety checklist.

Everyone in the team should be made aware that it is their responsibility to assertively raise their voice at least two times to ensure they are heard, that the member being challenged must acknowledge, and that if the outcome is not acceptable, a stronger action should be taken with the supervisor and that there should be stop the line in issues about safety including cessation of the process. While conflicts are common, that about 40% of the leader’s time is spend on this, solving is critical to becoming productive and increase possibility of satisfaction of the physician and patient [37].

There are other ways of managing conflict that has not been found to improve patient outcomes. These include compromise where both parties settle for less, avoidance where the issue is sidestepped or ignored altogether, accommodation or deference where the focus on preserving the relationship and not the patient interest override, or dominance where the higher status member wins or whoever yells the loudest. When the surgeon words belittle or intimidate members, it inhibits willingness to speak up and hence the surgeon must be willing to listen, follow ad model effective communication, and be the role model [37].

4. Conclusion

For medicine to be healing, communication with patient and other healthcare workers must be effective and efficient. The traditional models of communications in principle and theory are changing to include consideration for the global nature of the practice of medicine. New models and tools for better communication with colleagues, patients, and their relatives have been developed. Research has indicated that those who use these tools consistently have not only gained clarity in their communication but they improve physician-patient relationship and outcomes as well. Cultural considerations and modifications of models to fit international communication have led to the need of cultural competency in clinical practice. All these efforts are employed to ensure that consideration is given to the patient and outcomes in whatever context they may be. In communication, there can be misunderstanding; these must be solved speedily and in a way that is respectful to both party's perspectives so that the main interest remains the good of the patient.

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Conflict of interest

None to declare.

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