

Risk Communication and Deployment-Related Exposure Concerns

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What Is Risk Communication?



- “... an interactive process of exchange of information and opinions...”
- “It involves multiple messages about the nature of risk and other messages... that express concerns, opinions or reactions to risk messages... as well as information on what to do to control/manage the (health) risk.”
National Research Council (1989)

Risk Communication Is Important in Situations of:

- High concern
- Low trust
- Complex information
- High uncertainty or expert disagreement
- Differential relationships of power



Exposure concerns have these characteristics!

Why Effective Communication Is Important when Discussing Exposure Concerns

- Several studies show that good communication skills and an effective patient-clinician relationship lead to:
 - Improved patient satisfaction
 - Better disclosure of important information
 - Greater adherence to treatment
 - Reduced emotional distress
 - Improved physiologic measures
 - Better overall clinical outcomes



Principles of Effective Risk Communication

- Risk communication needs to be a dialogue (“two-way”) – ***It means listening not just medical or risk speak***
- Know why you are communicating – ***Have clear goals – are you trying to do: increase awareness? Inform and educate? Change behaviors? Promote collaborative decision-making?***
- Set a shared agenda with the Veteran up front in the exposure consult/assessment – ***Share “control” Explain what the exposure assessment/registry exam is/is not***
- Identify and understand Veteran’s concerns, beliefs, perceptions, prior knowledge, information needs and source preferences – ***Know with whom you’re communicating***



Principles of Effective Communication

- Tailor communication/messages- ***to address Veteran perceptions, concerns and your needs***
- Ensure consistency or explain discrepancies
- Structure communication to respond to concerns and provide information to facilitate collaborative decision-making - ***Check back on understanding***
- The person communicating must be perceived as trustworthy and credible



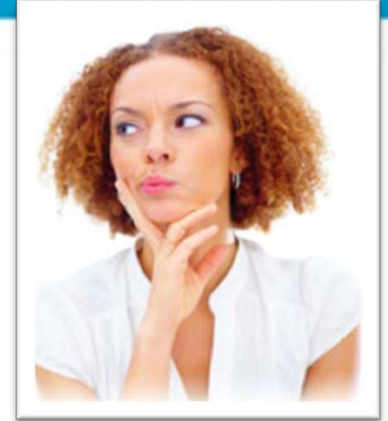
Listening to Veteran's Exposure Concerns Is Key

- It's not unusual to dismiss “anecdotal” stories from a scientific point of view but....
- Listening to the Veteran's “story” regarding potential exposures and how/why they believe they are related to health concerns is key
- Recognize lay “evidence” differs from scientific evidence
- Be sure you are addressing the Veteran's top questions/concerns – not just your own agenda



How Do Lay People Make Judgments About Risk

- Scientific exposure/risk analyses attempt to quantify exposure and predict likelihood and magnitude of a health risk
- Veteran/public judgments about risk based on more complicated and subjective set of cognitive, motivational, and affective factors
- “Tangible evidence” – personal experience and sensory cues have higher “value” than hypotheses, data, etc.
- Information alone does not cure “wrong” perceptions



Risk Perceptions



- Psychometric model - perception defined as function of individual's cognitive and affective estimations for experiencing “harm” from a hazard
- Cognitive loss based (experts prediction of likelihood and magnitude of harm)
- Affective based- whether negative consequences are anticipated or perceived as already having occurred (prospective or retrospective)
- Perception = Reality

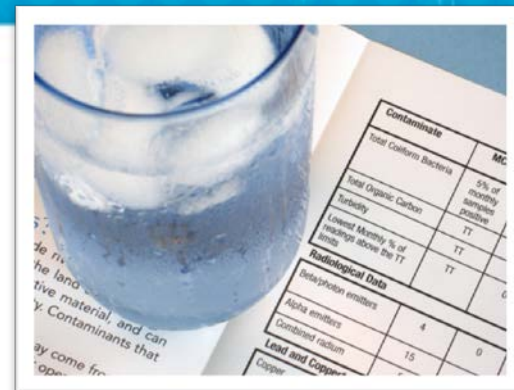
Data from Risk Perception Pilot Survey and Focus Groups

- Sensory cues are viewed as evidence of exposure
- Protective measures (alarms, suits) are seen as evidence of exposure vs. limiting the potential for exposure
- Dread, uncertainty and lack of trust exacerbate health concerns
- Veterans aware of media coverage of exposure concerns which heightened concerns

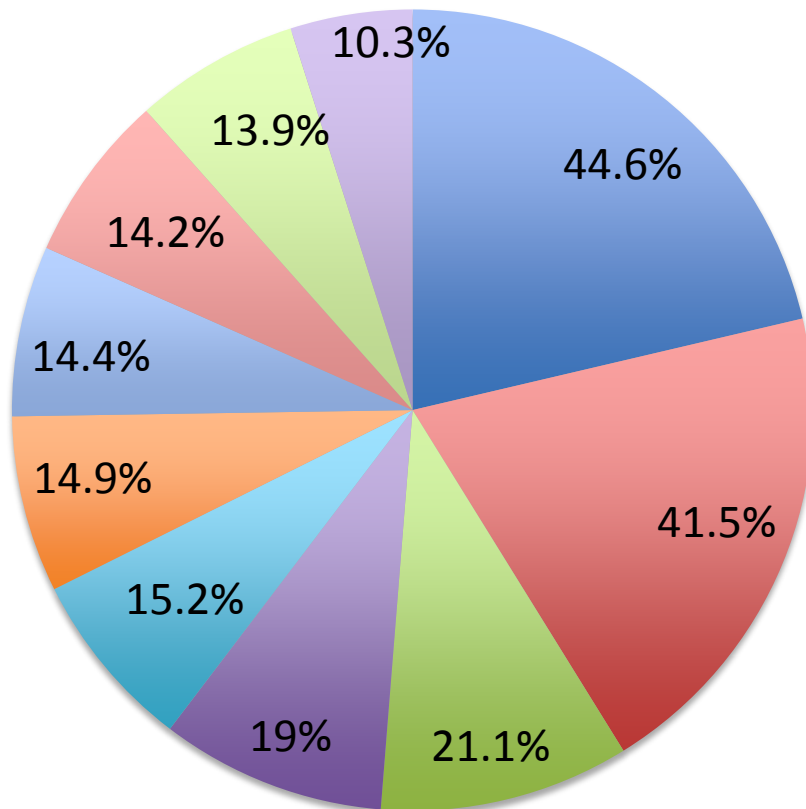


What the Research Tells Us Implications for Exposure Concerns

- Public/Veterans tend to equate any degree of exposure with harm
- Physicians use more of a “lay” mental model when evaluating certain health risks
- Public/Veterans rely on other mental “cues” for processing risk information
- Public/Veterans weigh risk and benefit differently than physicians or scientists
- Public/Veterans judge uncertainty differently i.e. “no data”, “not sufficient scientific evidence” = “you just don’t know” or “that means it’s a problem”



Top Ten Environmental Exposures of Concern: OEF/OIF



In descending order:

- Smoke from burning trash or feces
- Sand and dust storms
- Gasoline, Jet Fuel, Diesel Fuel
- Depleted Uranium
- Paint, solvents, other petrochemicals
- Oil well fire smoke
- Contaminated food and water
- Anthrax Vaccine
- Multiple Vaccinations
- Vehicular Exhaust

Source: NJ WRIISC
Concerns of 612 patients seen for clinical evaluation

Top Ten Environmental Exposures: *Gulf War*



1. Protective gear/alarms (82.5 %)
2. Diesel, kerosene and other petrochemicals (80.6%)
3. Oil well fire smoke (66.9%)
4. Ate local food (64.5%)
5. Insect bites (63.7%)
6. Harsh weather (62.5%)
7. Smoke from burning trash/feces (61.4%)
8. Within 1 mile of missile warfare (59.9%)
9. Repellants and Pesticides (47.5%)
10. Paint/solvents and petrochemicals (36.5%)

N=651

Schneiderman AI, et al. American Public Health Association, 133rd Annual Meeting, Philadelphia, PA, December 14, 2005.

Factors that Influence how People Process Information



- Availability heuristic – people tend to judge events that are easily recalled as more risky than events not readily available to their memory
 - Smoke, sand, fires are triggers/cues for this heuristic
- Events that have occurred recently or receive high media attention are more available
- Repetitive reporting of an event influences recall

Factors that Influence how People Process Information

- Confirmation bias – people filter new information to fit previously formed views and beliefs
- New information that supports existing views is seen as more reliable and therefore more readily accepted than information that is contrary to current views or beliefs – we all do this!
- Acknowledge information that the Veteran references first – then say why you do or do not think it applies. Explaining your thought process is key



Importance of Risk Perceptions in Communication

- Related to health behavior, the processing of health information, and medical-decision making
- Influenced by a wide variety of cognitive, motivational, and affective factors
- Often lead to errors in risk perception among laypeople (including Veterans), media, “non experts”
- Information does not cure “wrong” perceptions



Understanding Risk Perception

Less Risky	More Risky
Voluntary	Involuntary
Individual Control	Controlled by Others
Familiar	Unfamiliar
Low Dread	High Dread
Affects Everybody	Affects Children
Naturally Occurring	Human Origin
Little Media Attention	High Media Attention
Understood	Not Understood
High Trust	Low Trust
Consequences Limited/Known	Catastrophic Consequences
Benefits Understood	Benefits Unclear
Alternatives Available	No Alternatives

Uncertainty and Risk Communication



- Who was exposed and to what? – magnitude and duration (lack of real-time exposure data)
- Whether exposure to various deployment exposures does or does not pose a risk and to whom?
- Whether symptoms Veterans experience currently can be attributed to a previous exposure or not?
- Potential impacts from exposure to mixtures?
- Role of pre-existing conditions and personal risk factors?
- How/whether the government is “doing enough” to address concerns?
- Need to “bound” uncertainties in communicating and describe what is being done to reduce
- Give people actions they can take to reduce anxiety, monitor health, etc.

Using “Negatives” Confounds Communication

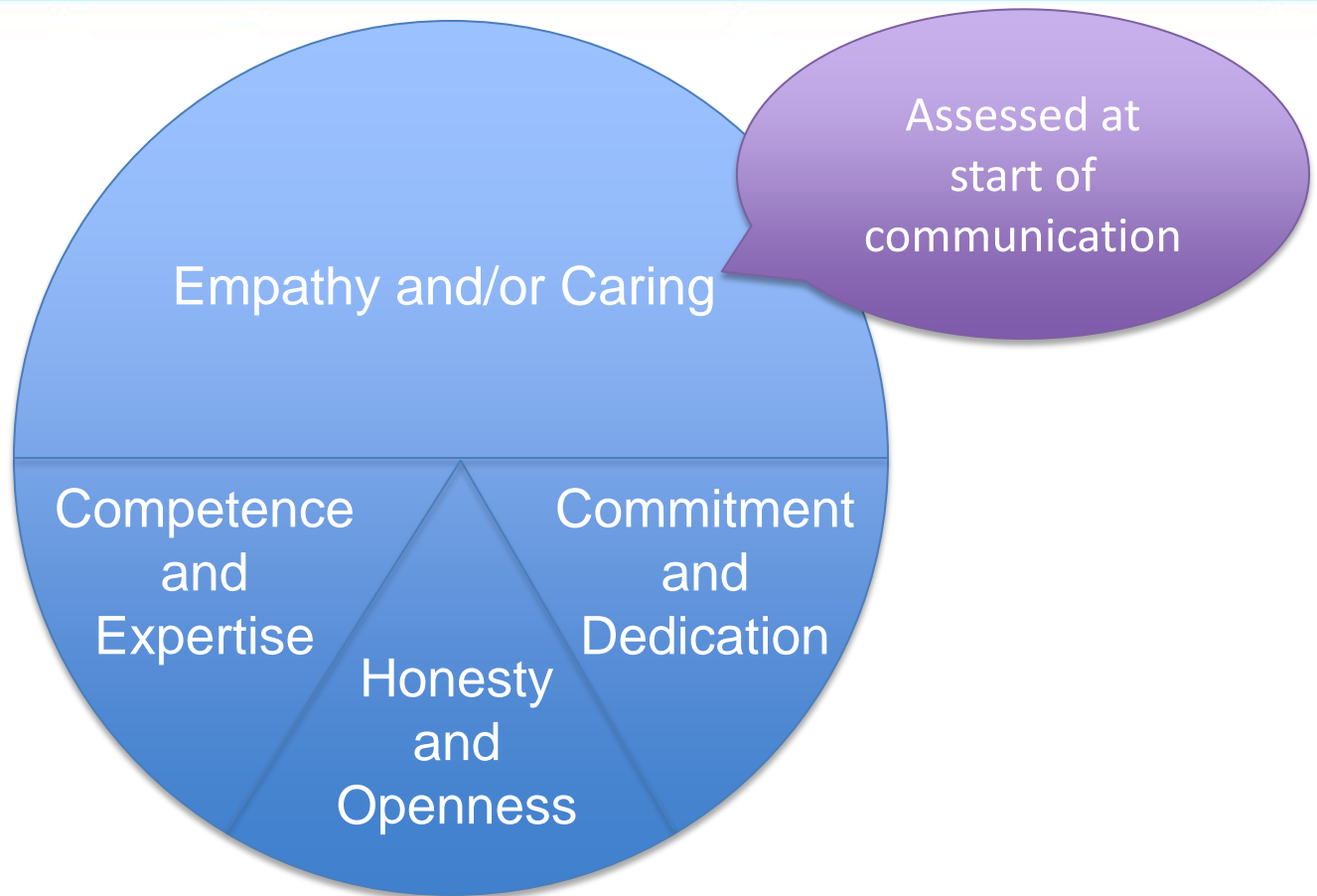
“It wasn’t our accident, but we are absolutely responsible for the oil, for cleaning it up and that’s what we intend to do.”

“What has failed here is the ultimate safety of the drilling rig...There are many barriers of protection that you have to go to before you get to this. It isn’t designed to not fail.”

“There is limited or suggestive evidence of no association between deployment to the Gulf and lung disease... “

“We have no data to suggest that x exposure causes yz health effect.”

Trust and Credibility of the Communicator Is Key

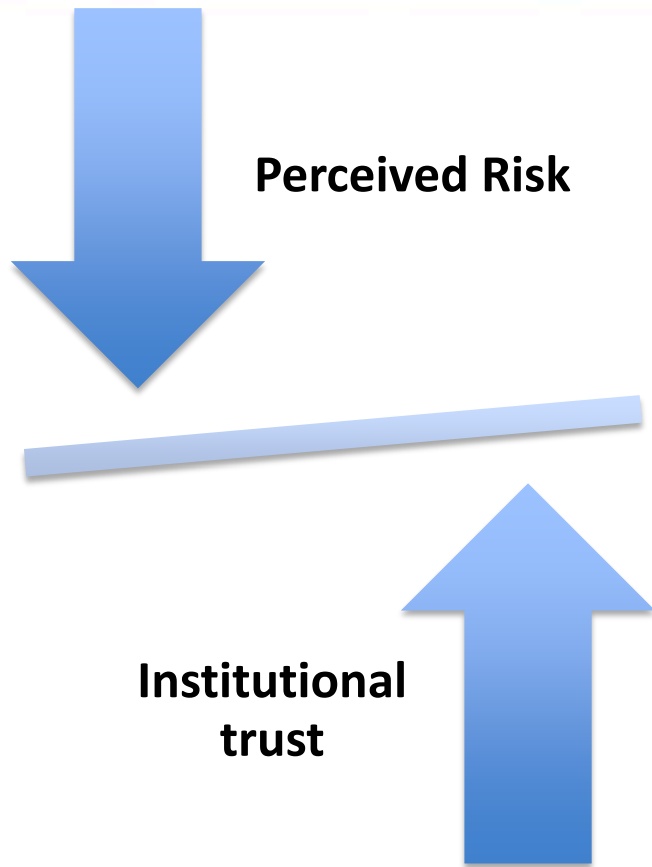


Institutional Trust and Perceived Risk

- Veterans may trust their individual provider but also need to look at “Institutional trust” (trust in authorities)
- Institutional trust domains include: openness, honesty, reliability, fairness, caring and integrity (Metlay 1999)
- Two primary factors: affective is most important (caring, openness, reliability, honesty, credibility and caring); 2nd factor-competence



Institutional Trust and Perceived Risk



- Numerous studies indicate that as institutional trust increases – perceived risk decreases
-Flynn et. al., 1992; Siegrist et. al.,2000,2002; Allum, 2007
- Magnitude of effect depends on population and hazard

Who the Public Perceives As Credible

MOST CREDIBLE

- Local citizens perceived as neutral, respected, informed about the issue
- Health/safety professionals
- Professors/educators
- Clergy
- Non-profit organizations
- Media
- Environmental/advocacy groups
- Federal government
- State/local government
- Industry
- “For profit” consultants

LEAST CREDIBLE



Source: Columbia University Center for Risk Communication

Establishing Trust and Credibility

- Third party endorsements from credible sources
- Demonstrating supporting characteristics
 - Caring
 - Honesty
 - Competence
 - Dedication
- Organizational credibility
 - Consistency
 - Accessibility
 - Track Record



What Can You Do to Achieve Effective Communication?

Experience/Express

Concern/Empathy

Achieve/Convey

Understanding

Provide

Information

Explore/Articulate
Implications

Follow Up Actions

5-Stage Model for Responding in Situations of High Concern and/or Low Trust

- 1 Active listening and emphatic responses
- 2 Provide short clear statements of findings – your main point
- 3 Provide 1-2 facts to support main point
- 4 Repeat the statement/main point
- 5 Next steps/follow-up by provider and patient

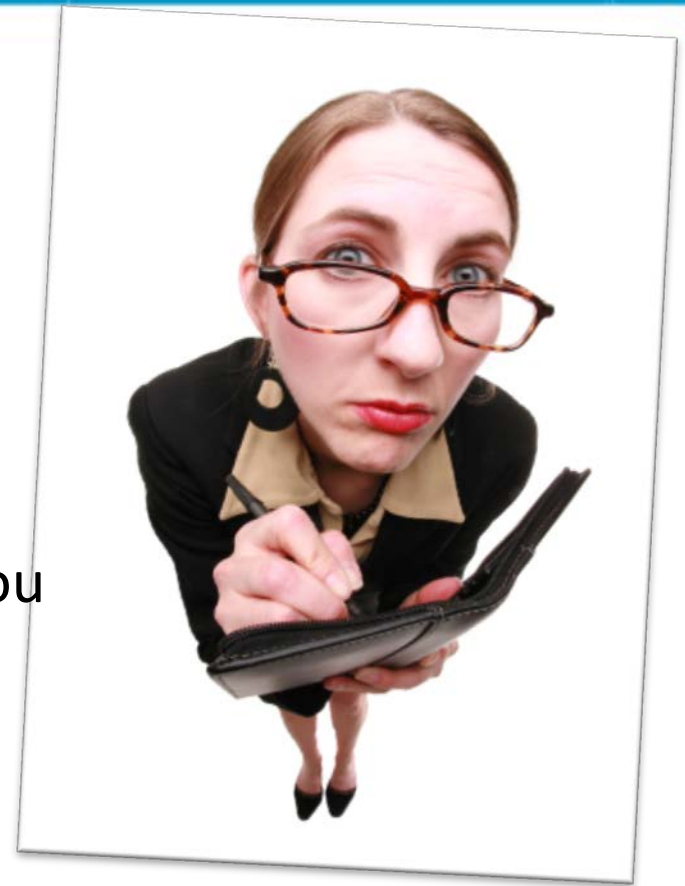
Elements of Active Listening

- Acknowledging you hear
- Encouraging the other person to say more
- Actively exploring his or her perspective
- Testing the meaning to the other person
- Paraphrase by repeating back without inserting your own point of view



Responses that Help Communication

- Paraphrasing
 - “So you’re thinking that...”
 - “Sounds like you are concerned that...”
 - “You feel... because...”
 - “I’m hearing that...”
 - “Let me see if I understand what you are saying...”



Techniques to Improve Communication

Offer Empathy

- Validate the patient's feelings
- Be aware of personal thoughts, feelings
- Be aware of biases or stereotyping

Listen Actively

- Elicit the patient's illness schema/mental model
 - "What brought you here today?"
 - "What worries or concerns do you have?"
 - "What are your thoughts about what I can do to help?"

Reflect Back

- Your understanding of what the Veteran's concerns and beliefs are
- The Veteran's understanding of what you have found and not found
- Stay attuned to questioning style and nonverbal messages you send

Statements to Avoid

Don't worry, it's nothing serious

Your problem is due to stress.
Stop worrying.

I'd like to order a few tests to be sure there is nothing wrong, but I believe they'll be normal.

You just need to stop (smoking, drinking, etc.)

Communicating Effectively

Messages
should
include

- What your patient/Veteran want to know (i.e. address their top concerns first!)
- What you think is critical – including key concepts of exposure, dose, temporal association, etc.
- What they are likely to misunderstand, if you don't address
- Sensitivity to emotions, concerns, values, etc.
- Steps for follow up to resolve uncertainties and how they can get more information

Summary: Communicating with Veterans About Deployment-Related Exposure Concerns

- Listen: Risk communication is two-way
 - Understanding knowledge, prior beliefs is key
 - Address risk perceptions in communicating
- Recognize empathy and trust are extremely important
 - Convey caring before information/science
- Explain concepts of exposure, dose/response, timing of exposure and effect, biological plausibility, etc.
 - Explain how exposure is determined
 - Assist with knowledge gap (belief that any level of exposure may cause harm)
- Describe uncertainties but bound it
 - What is being done to address uncertainty



Summary: Communicating with Veterans About Deployment-Related Exposure Concerns

- Not having the answer - is ok!
You don't have to but...
 - Be sure to follow up - where else can they get information/ who else can help; concept of watchful waiting
 - Avoid negative responses
 - “I agree with you but I can't say that...”
 - “We don't have any information to suggest that.”
 - “You wouldn't feel so badly if you would just lose weight and stop smoking.”
 - No one can tell you why you have this disease... or we don't know whether there is a relationship or not
- Remember risk perception is not mis-perception... addressing perception is key to communicating about environmental exposures

