INNOVATIONS IN INFORMED CONSENT: A REVIEW OF EMPIRICAL RESEARCH

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CHALLENGES TO INFORMED CONSENT

- Lack of familiarity with research
- Stress of recent diagnosis
- Urgent need for treatment decision
- Cognitive effects of disease/treatment
- Increasingly complicated protocols/ research designs
- Poor literacy/health literacy
- Unique ideas, personal beliefs, life circumstances

OVERVIEW: EMPIRICAL RESEARCH ON IC

- What we know about the informed consent process
- What we don't know
- What has been tried to improve the process (and more importantly, what WORKS
- What we might try

EMPIRICAL RESEARCH ON INFORMED CONSENT

- Multi- and inter-disciplinary
- Varied approaches and methods (e.g., survey, experimental)
- Heavily focus on general understanding/comprehension general issues
- Growing focus on more complex, contextual questions
  - research participants' perceptions of certificate of confidentiality assurances
  - understanding of risks & benefits in gene transfer trials
- Published in many different journals – can be difficult to find (DuBois, 2008)

LIMITATIONS OF RESEARCH ON IC

- Lack of reliable, valid, tested measures of relevant constructs
- Variable quality of study design: limited generalizability, insufficient sample sizes, biased estimates of correlation, significance
- Hypothetical scenarios
- Too population-specific
- Redundancy – lots of studies already show that subjects have poor understanding of informed consent!
- Difficult to compare and synthesize findings across multiple studies

CHALLENGES TO RESEARCH ON IC

- Researchers are "gatekeepers" to subjects – cooperation needed
- Some investigators report difficulty obtaining IRB approval for studies on IC
- Researchers don't like to be subjects of informed consent research
- What do you do if you identify problematic informed consent practices?

Sachs et al., 2003

WHY DO PEOPLE PARTICIPATE IN RESEARCH?

SELF-INTEREST

- **Improve health**
- Access to care
- Increased contact with HC provider
- Incentive payment
- Learn more about their dx
- Curiosity
- Fun, enjoyment, social benefits

FOR OTHERS

- Altruism/help others
- Help science/society
- Help their physician, institution

Self interest and altruism are not mutually exclusive

Geppert et al. 2014
Appelbaum et al., 2009
Wendler et al., 2008

PUBLIC WILLINGNESS TO PARTICIPATE IN RESEARCH?

- 46% willing – new tx for disease of concern to them
- 25% not willing
- 29% undecided
  - Over half of these willing to participate under certain circumstances (e.g. cancer)
- Determinants of willingness (vs. unwilling):
  - Having a sick relative or friend
  - 35-64 years of age (middle aged)
  - Prior experience as research participant
  - Favorable attitudes towards use of humans research
- Determinants of being undecided (vs. unwilling):
  - Having at least a college degree
  - Favorable attitudes towards us of humans in research

Trauth et al., 2000

BARRIERS TO PARTICIPATION OF DIVERSE PATIENTS

- Fear, lack of trust
- Lack of opportunity
  - Location where care sought
  - Not offered? Physician triage and knowledge
- Structural barriers

Schmotzer, 2012

LITERACY IN THE U.S.

- 21% of adults are functionally illiterate
- Additional 27% have “marginal literacy”
- Average reading ability of US adults at or below 8th grade level
- Low literacy associated with poor health outcomes

2006, USDOE, National Assessment of Adult Literacy

CRITICAL GAPS IN UNDERSTANDING?

- Dozens of studies have shown that many research subjects have poor understanding regarding what they have agreed to do (Sugarman, et al, 1999; Siminoff et al., 2004)
- Only about half adequately understand goals of research, and fewer understand concepts associated with risks, randomization, voluntariness, and right to withdraw- (Nishimura et al., 2013, review)
- Participants do not understand investigative nature of clinical trials (Falagas et al., 2009) and often don't realize they agreed to "research"
- Individuals may decline due to lack of understanding rather than negative attitudes towards the research (Stevens and Ahmedzai, 2004; Williams et al., 2007)
- Patients who do not fully understand are more likely to drop out, which creates bias and limits study conclusions

INTERESTING FINDINGS FROM SOCIAL SCIENCE RESEARCH

- Strong confidentiality assurances in in low-risk research can lead to decreased willingness to participate and decreased trust (Singer et al., 1992 & 1995)
- Many participants report psychological benefits from participation in research on past traumatic events (Newman et al., 2006)
- Paying drug users to participate in research does not increase their drug use (Festinger et al, multiple articles)

DO PARTICIPANTS FEEL LIKE THEY CAN SAY "NO"?

- Review of instruments used to assess voluntariness found no shared conceptualization of the consent of voluntariness (Mamotte and Wassenaar, 2015)
- There are almost no data to assist researchers and IRB in determining fair incentive payment amounts (Dickert, Emanuel, & Grady, 2002)
- Incentives influence decision-making but do not necessarily persuade potential subjects to ignore risks of research participation (Halpern et al., 2004; Casarett, Karlawish, & Asch, 2002; Bentley & Thacker, 2004)
- Little evidence of threats to voluntariness; 3 participants reported pressure from others to enroll or forego (family), and no pressures significantly influenced decision (Applebaum et al., 2009)

PRACTICAL WISDOM

- Researchers perceive that wording changes, language required by IRBs do not improve participant understanding (Burris & Moss, 2006)

- The text that IRBs often require for informed-consent forms falls short of their own readability standards (e.g., 5th-10th grade reading level) (Paasche-Orlow et al., 2003)

FOCUS GROUPS WITH THOSE RESPONSIBLE FOR IC

- Some resignation re: length of consent forms but awareness that they could be made shorter and still contain same information
- Unsure about what IRB might approve
- Participants "don't care" about much of the info presented in consent forms, have negative reactions to legal language
- Can be tricky balancing job to recruit participants and doing informed consent "right"
- Need for more training/support of those in the field
- Disconnect: Ethics emphasizes IC as a "process" but IRB wants "scripts"

WHAT DO PARTICIPANTS WANT TO KNOW?

- Limited evidence suggests that informational needs vary
- Level of detail wanted less clear than content
- Some things not addressed by US federal regulations
  - Dissemination of findings
  - Return of individual results
  - Investigator conflicts of interest

(Kirkby et al., 2012 (UK))

- When offered option for more information re: participation in an online study, most participants did not choose to do so (only 18%); 23% participated without accessing any information (Antoniou et al., 2011)

WHAT DON'T WE KNOW?

- What is truly important to potential participants?
- What should we spend more time (and space) on? What might we spend less time (and space) on?
- What can we learn from the experience of individuals responsible for obtaining informed consent?
- Is there a correlation between understanding and satisfaction with experience (feeling respected)? Between understanding and study completion (retention)?
- If we focus on improving only understanding/comprehension, can we increase willingness to participate and improve participant representativeness/diversity?

WHAT HAS BEEN TRIED TO IMPROVE THE IC PROCESS?

- Shorter forms
- Clearer language
- Formatting & design
- Multimedia
- Decision support

SHORTER, CLEARER, FORMATTING AND DESIGN

- White space, leading, font styles, italics, underlining, margin justification
- Simple headers, , break up chunks of text, limit list items
- 2 columns!
- Short, direct sentences, one idea per paragraph
- Consistent use of terms
- Active voice, second person
- Simple graphics

(Denzen et al, 2012)

MULTIMEDIA CONSENT PROCESSES

- Multimedia learning theory: Learning facilitated when information simultaneously provided through both verbal and visual-spatial pictorial channels
- Variable effectiveness: **31%** of multimedia interventions demonstrated significant improvements in understanding **(compared with 50% for extended discussion and 41% for "enhanced" consent forms)** (Nishimura et al., 2013 review; also see Ryan et al., 2008)
- Shows promise for "anticipatory guidance" – increased comfort with and ideas for questions (Hazen et al., 2010)
- Multimedia consent (DVD with audio, text, and graphics) improved understanding and capacity to consent in patients with schizophrenia but no difference in healthy subjects – more useful in high risk/complex protocols? (Jeste et al., 2009)
- Few studies report good information the actual content of the intervention or how they were developed (exception Wells et al., 2012 – iterative process involving patients, caregivers)
- Cost-benefit analysis? More research needed on standardization, dissemination

DECISION SUPPORT APPROACHES

- Indicators of good quality decision making in situations where there is no objectively correct answer (Brehaut et al., 2010):
  - Demonstrable knowledge of key aspects of the decision
  - Accurate perceptions of probabilities of various outcomes
  - Match between preferred outcomes & choice made
- Consent forms meeting regulations do not necessarily meet decision quality standards (Brehaut et al., 2015)
- Planned research to assess use of patient decision aid to improve IC process (Brehaut et al., 2009)
- Use of question prompt lists (Brown et al., 2011)
  - Promising, but some patients may prefer more paternalistic styles

SUMMARY: DO WE KNOW WHAT WORKS?

- Basic formatting and good writing goes a long way – but this is not the status quo and not all IRBs have the resources to enforce this
- Combination of simple language and adequate time (Falagas et al., 2009)
- Multimedia interventions show promise, but cannot just convert standard consent to other formats; well-done print media may be as effective as video
- Multimedia interventions don't eliminate the need for personal interactions

FUTURE DIRECTIONS/INNOVATIONS

- Development of theory is needed to guide research and practice

- Development and testing of innovative interventions
  - Involvement of stakeholders, especially patients and former/potential research participants
  - Higher order principles of good design
  - Decision support tools
  - *Interactive (and not just multi)* media (Madathil et al., 2011, 2012)
  - Staff training and support

- RCTs (head-to-head comparisons) (Agre and Rapkin, 2003)

WHAT LEVEL OF EVIDENCE IS NEEDED:

- To change the status quo?
- To change the regulatory requirements?
- To persuade IRBs to allow modifications in a specific study?