Role of Qualitative Methods in Intervention Research

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Pragmatic Perspective

- Values contribution of quantitative and qualitative methods in intervention evaluation, regardless of philosophical assumptions underlying the different methods
- Translates into application of generic approach to qualitative research (i.e., use what would be most appropriate to address study aims)
Intervention research

- Concerned with determining effectiveness of therapies, treatments, or procedures in addressing a health-related problem experienced by individual patients, groups, or communities.

- General recommendation is that only effective interventions are translated for use in day-to-day practice.
Intervention Evaluation - Phases

• Evaluating effects of newly designed intervention is done in 3 phases: 1) pilot-test exploring intervention feasibility, acceptability, and preliminary effects on the immediate outcomes; 2) efficacy of intervention; 3) effectiveness of intervention

• Qualitative research methods can be used in each phase to examine different aspects of the intervention
Feasibility

• Feasibility has to do with practicality or logistics of implementing an intervention
Feasibility

1. Adequacy of training provided to interventionists: qualitative, individual or group interviews used to elicit interventionists’ perception of training sessions and of competencies in carrying out intervention activities

2. Availability of resources needed to deliver intervention: i) checklist regarding whether or not all required resources are available in adequate amount, ii) field notes of issues encountered (e.g., malfunctioning of equipment, delayed delivery)
Feasibility

3. Physical and/or psychosocial context in which intervention is provided, which interfere with proper implementation of intervention: document occurrence, nature, and/or perceived impact of these features on intervention delivery or participants’ reaction to intervention
4. Fidelity of intervention implementation: monitoring delivery of intervention to identify issues related to the clarity, comprehensiveness, and logical sequencing of the information given to participants; and the relevance of and ease with which the intervention activities are performed.

- Qualitative observational and self-report methods: list of activities recorded and compared to list derived from intervention protocol; discrepancies discussed to understand reasons.
- Interventionists reflexive field notes about challenges encountered during intervention implementation, possible reasons for, and suggestions for how to manage them.
Acceptability

- Acceptability refers to participants’ perception of intervention as appropriate in addressing health-related problem they experience, effective, convenient or easy to apply in daily life, with minimal side effects
Acceptability

Direct assessment using qualitative methods:
- done at completion of intervention
- individual or group interviews to elicit their feedback on content and activities of intervention, mode of delivery, and dose
  + suggestions for ways to improve intervention so that it is responsive to their needs.
Indirect assessment using qualitative methods:
• inquire about reasons for non-enrollment and for withdrawing from study (Note: reasons that relate to aspect of intervention are informative; e.g., treatment is demanding and not liking treatment)
Preliminary effects of intervention

Role of qualitative methods in outcome assessment
  - done with open-ended questions at post-test
  - inquire about participants’ perspective on how intervention affected them
  - responses: 1) confirm quantitative results related to outcomes, 2) identify improvement in areas of life that was not anticipated, or 3) begin to delineate adverse effects
Phase 2 - Efficacy

- Efficacy refers to causal relationship between intervention and outcomes
- Control for any factor that could potentially confound causal effects of the intervention on outcomes; achieved with experimental or randomized control trial, using primarily quantitative methods
Role of Qualitative Methods in Efficacy

1. To explore potential for selection bias, reflected in reasons for declining enrollment and/or for withdrawal
2. To identify nature and reasons for deviations in intervention implementation (fidelity)
3. To examine reasons for participants’ non-adherence to treatment recommendations
4. To describe participants’ response to and satisfaction with intervention.
5. To delineate adverse effects of intervention
Efficacy

Qualitative data obtained from researcher observation and field notes; interventionists’ field notes or responses to interviews; and participants’ answers to open-ended questions asked in context of interviews or embedded in questionnaires administered at different points in time around and/or during intervention implementation
Phase 3 - Effectiveness

- Effectiveness relates to robustness of intervention in producing anticipated beneficial outcomes when implemented under less well controlled conditions of practice
Effectiveness

Intervention is given:
1) by different interventionists who may vary in competency and interactional style that influence the fidelity of implementation
2) to different patients presenting with a range of socio-demographic and clinical characteristics, (potential confound)
3) in different contexts or settings with variable features that affect the implementation of intervention and/or achievement of outcomes
Role of Qualitative Methods in Effectiveness

• used for same 5 purposes as discussed for efficacy

• helpful in describing features of multiple sites; features can be compared and contrasted, and their impact on implementation of intervention or on outcomes can be explored through interviews with interventionists and patients, or through ethnographic approach which may be useful in capturing dynamics of how intervention is given by different interventionist in different sites
Conclusion

• Qualitative methods provide primary and complementary data on multiple aspects of intervention implementation that expand our understanding of how best to deliver and how effective intervention is.

• Qualitative results may offer explanations for observed quantitative findings, and therefore promote validity of conclusions about utility of intervention.