ORCαB

Improving quality and safety in the hospital: The link between organizational culture, burnout and quality of care.

D 9.2 Action Research Handbook

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DELIVERABLE D9.2

Improving quality and safety in the hospital: The link between organisational culture, burnout and quality of care- ORCAB

Goal
The goal of the deliverable 9.2 of work package 9 was to produce an Action Research Handbook to provide practical guidelines for the use of action research in medical settings.

The deliverable was conducted under the supervision of:

Project Coordinator: Efharis Panagopoulou
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Action Research Handbook

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ORCAB ACTION RESEARCH HANDBOOK

INTRODUCTION

The following handbook is divided into three sections: (1) What is Action Research? (2) The Action Research Approach of the ORCαB project, (3) Special Issues involved in the doing Action Research. The first section is intended as a brief definitional overview of Action Research (AR) and its use in the healthcare sector. The second section outlines the AR approach recommended for use in the ORCαB project. Finally, the third section provides guidance on the process issues involved in conducting Action Research.

SECTION 1. WHAT IS ACTION RESEARCH?

1.1 DEFINING ACTION RESEARCH

Action research differs from more traditional empirical research paradigms in that it conducts research *with* participants rather than *on* participants. The outcomes of action research involve both addressing significant organizational issues while advancing knowledge. Action research has shown utility in addressing similar issues in somewhat similar organizational contexts. Kurt Lewin, a social psychologist, is credited with developing action research. His original paper (Lewin, 1946) provides important insights as to how action research should be envisioned:

> *"The research needed for social practice can best be characterized as research for social management or social engineering."*

> *"Research that produces nothing but books will not suffice."*

> *"To act correctly, it does not suffice, however if the surgeon or engineer knows the general laws of physics or physiology. He has to know too the specific character of the situation…"*

At the most basic level, action research is about intervening in an ongoing system of relationships, to come between or among persons and groups for the purpose of helping them. Action research is an emergent inquiry process that engages in an unfolding story, where data shift as a consequence of interventions and where is it not possible to predict or control what takes place (Coghlan & Shani, 2013). Its distinctive character is that addresses both bringing about change in organizations and generating robust actionable knowledge. Collaboration and co-inquiry should be the hallmark of action research whereby research is constructed with people, not on or for them.

1.2 THEORETICAL BACKGROUND TO ACTION RESEARCH

Hospitals are organizations under considerable stress. In the UK surveys show that continuity of care for the patient is being compromised (Hawkes, 2012). This is not surprising when one considers that healthcare professionals are expected to handle structural changes and technical developments, are required to be accessible, provide holistic patient-centered and patient-managed care, develop their own evidence-based competence and achieve an appropriate balance between their work and private life. The link between well-being and performance has been well documented. In healthcare, this is particularly crucial whereby the well-being of healthcare professionals has a direct link with patient care and medical errors. However, to date evidence-based interventions that address both are seriously lacking.

Action Research (AR) represents a pragmatic tool for changing attitudes, beliefs and behaviours within healthcare (East & Robinson, 1994). It comprises a useful methodological approach, able to facilitate changes within health care settings and support health service delivery development (Hampshire, 2000; Tanna, 2005). Two of the key elements of AR are the cyclical process and the collaborative element (Waterman, Tillen, Dickson, & de Koning, 2001). In AR, researchers and practitioners are working closely, in every stage of the process, to systematically identify issues and problems and to improve professional practice and quality of care (Waterman et al., 2001). The cyclical process of AR includes problem identification - planning of action - implementation of action - evaluation and reflection (Waterman et al., 2001).

Unlike other research approaches aimed only at generating knowledge and understanding specific problems, AR focuses on facilitating action and generating knowledge about that action (Meyer, 2000). AR attempts to bridge the gap between theory and practice (Holter & Schwartz-Barcott, 1993; Rolfe, 1996), is problem-focused (Hart & Bond, 1995) and informed by the reality of practice (Waterman, Webb, & Williams, 1995).

1.3 ACTION RESEARCH IN HEALTHCARE SETTINGS

AR was originally proposed by Kurt Levin in the 1950's as a way to combine theory and practice. Later, AR was identified as a promising strategy for promoting organizational change and high quality of care in health care settings through the implementation of evidence-based practices (Waterman et al., 2001). AR is a collaborative and participatory process aimed at generating knowledge and practical solutions to problems in specific locations. It is also a cyclic process of problem identification, planning, action and evaluation. Results from studies that implemented AR in heath care settings showed that it is a promising strategy to promote organizational changes, teambuilding and empowerment of heath care professional resulting in better quality of care (Beringer & Fletcher, 2011; Clark, 2009; Moxham et al., 2010; Williams, Dawson, & Kristjanson, 2008). AR allows for a bottom-up approach where health care staff in collaboration with researchers, identify the most important issues for change within the health care setting, develop, implement and evaluate context- specific solutions.

High job burnout and low job engagement are symptoms of what is happening within the organisation (Montgomery, Panagopoulou, Kehoe, & Valkanos, 2011). There is a need to focus on organizational awareness (i.e, The purpose of the hospital is) rather than deeply embedded in role behaviours (i.e., I am a doctor/nurse). The culture of medicine is similar (relative to other professions) across the globe, and physicians (especially) are educated to take a very specific role in an organization. This is especially true of medical education where medical schools seek to mimic the exemplar models. Mintzberg (1997) has written directly on the issue of hospital cultures in *Toward a Healthier Hospital*, and strongly insists that real organizational change can be effected only by a gradual bottom up approach that doesn't threaten the roles that individuals have established within the organization.

1.4 IS ACTION RESEARCH DIFFICULT TO DO?

There is no doubt that AR is both time consuming and challenging. However, it represents the most effective way to initiate change that is both real and sustainable. Action research is a unique methodology that dovetails with identified points for change in an organization. In 2012, a

special meeting of an EAWOP group focused on improving interventions[1] identified four elements of worker behavior that positively supports intervention work:

Job crafting - people shape their work continuously, individually & collectively. Therefore, organisational change is something people *actually* do on a daily/weekly basis.

The Importance of Stress - People actively interpret what goes on around them, and this is the basis of "stress" reactions. Stress, while unwanted, represents a signal that individuals are engaged in their work.

Prevention - People will feel bad regardless of work, thus complete prevention is not possible. Action research solutions should recognise this fact.

Line Managers - Line managers are important for well-being. Line managers are the people that we communicate with most about the work that needs to be done. Typically, they are responsible for motivating us, providing feedback (negative and feedback), and setting our goals. We shouldn't underestimate their potential to be a positive influence on us. Action Research actions should seek to maximise this fact.

The aforementioned points for change are useful to consider in the start up phase of the AR process, and can be used by AR facilitators to remind AR teams of their potential to change their healthcare organisation as both individuals and a group.

Not surprisingly, a pathogenic approach to problems tends to dominate within healthcare. However, there is evidence that the time for a salutogenic approach has come in as indicated by the title of a WHO/EC report (Wiskow et al. 2010) titled *How to create an attractive and supportive working environment for health professionals*. The fact that words like 'effective', 'cost-efficient' or 'competitive' do not appear in the title is revealing. The authors of the report conclude that an off-the-shelf list of solutions are not possible, however they do recommend that; (1) we focus on process and content issues, and (2) many factors impacting on the work environment of health professionals are beyond the scope of influence of health policy-makers. In other words, we need to view health care settings as organizational settings (process), and their

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[1] International Process Evaluation Partnership (2012). *Improving organizational interventions for stress and well-being: Addressing process and context issues.* Conference at University of Nottingham, funded by the European Association of Work & Organisational Psychology

relationship with the other actors in the community needs to be taken into account. The aforementioned is consistent with the philosophy and goals of AR.

ORCαB has a specific focus on job burnout and organizational culture. The arguments in favour of utilising action research (AR) as a way to deal with burnout are considerable. Firstly, AR has the ability to tap directly into the systemic issues involved in the organisation. Secondly, we can view burnout more dynamically via AR and understand the push-pull of its antecedents and consequences. Thirdly, it calibrates success in that it is driven by the individuals in the organisation and thus more likely to be feasible. Following from this, it has an evolutionary character whereby AR teams are more likely to identify small wins at the beginning which will galvanise efforts for the bigger problems. Fourthly, to paraphrase Lewin, it's a highly practical theory, meaning it's theoretically rich but is experienced as practical by participants. The intervention of Halbesleben et al. (2006) which demonstrated the efficacy of the approach in reducing burnout among US Federal Fire Service could be easily adapted to hospitals. Changing the work constraints is difficult given the organisational culture in hospitals, which means that a bottom-up participatory approach is the most likely to succeed.

SECTION 2. THE ACTION RESEARCH APPROACH OF THE ORCAB PROJECT

2.1 MODELS OF ACTION RESEARCH

In the ORCαB project, we will employ the following model (see Figure 1) of AR to define the different stages of AR: (1) Problem identification, (2) Planning of action, (3) Implementation of action, (4) Evaluation, (5) Reflection.
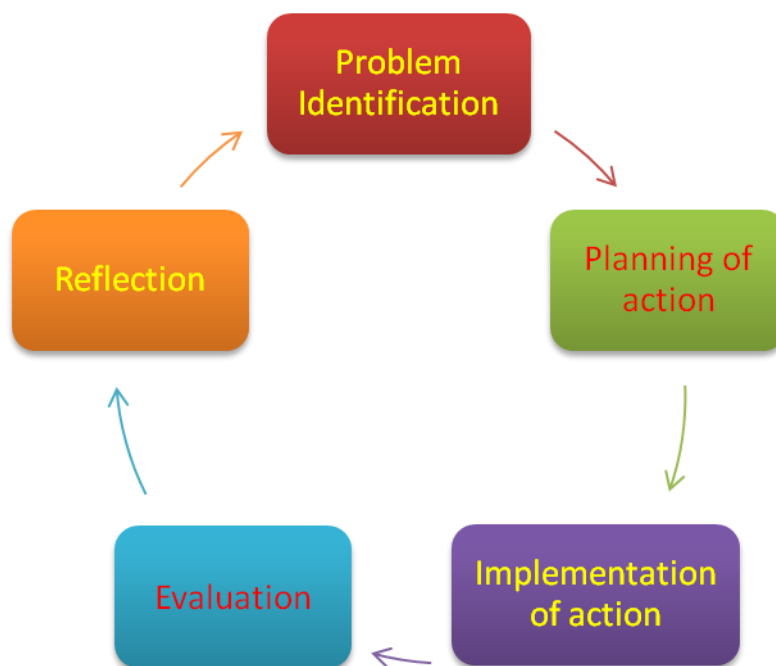
Figure 1. ORCαB Project Action Research Model

These five stages are intended as guides through the process of action research. It is important to be aware that within different AR projects different stages could happen simultaneously (e.g., implementation of action and evaluation). The different stages can be used both as a planning tool and an evaluation tool. However, it is important to recognise that there are other approaches to the stages of AR (see Table 1.). Indeed, it might be easier for action research teams to begin thinking about AR using more accessible models (e.g., Look, Think, Act, Repeat). Thus the researcher framework and practitioner framework can be different.

Table 1. Different Models of Action Research

ORCαB	Habelsen et al. (2006)	Stringer (1999)	Lewin (1946)
Problem identification	Contract Phase Reconnaissance Phase	Look	Planning
Planning	Problem and Opportunity Identification	Think	
Implementation	Implementation	Act	Acting
Evaluation	Evaluation	[Repeat]	Observing
Reflection	Recycle		Reflecting

Table 1 provides a useful way to delineate the AR approach for ORCαB. However, the recommended 5 stage methodology of problem identification up until reflection should not prompt us to ignore the type of AR research that is being conducted. Table 2 presents a continuum from rational social management until structural change. In order to illustrate this further, Table 2 includes two examples; change intervention and collaboration.

This chart can be used by AR teams to identify the degree of change that their AR actions are aiming at. It can also help to frame discussions around potential resistance and needed resources. The important point is that AR will involve reflection for the healthcare professionals involved and it is important for us to facilitate the level of change that they wish to engage with. Some types of change may produce a more robust reaction from other members of the organization, and the facilitator needs to help the AR team reflect on such issues before the implementation phase.

2.2 FIVE STAGES OF ORCAB ACTION RESEARCH

2.2.1 PHASE 1: PROBLEM IDENTIFICATION

The key issues for the AR teams to address are as follows:

Step 1: It is important to facilitate AR teams to select a specific problem/issue in their clinic or department. The AR members should be prompted to contextualise the problem issue as much as possible.

Step 2: Following on from the identification of the problem/s, it is very likely that AR teams will have to research the issue in more detail. Therefore, AR teams need to explore the ways that they will approach understanding/researching the problem.

Step 3: Before proceeding with this research, AR teams need to identify potential problems/obstacles to understanding the problem clearly.

Output: Problem   defined   and   potential   solutions   identified.

Table 2. Action Research Types

	Consensus model Rational social management		Conflict model of society Structural change	
	Experimental	**Organisational**	**Professionalizing**	**Empowering**
Change Intervention	Problem to be solved in terms of research aims	Problem to be solved in terms of management aims	Problem to be resolved in interests of practice	Bottom-up, changing systems
Degree of Collaboration	Differentiated roles	Differentiated roles	Merged roles	Shared roles

2.2.2 PHASE 2: PLANNING PHASE

The first phase (problem identification) will have resulted in a clear definition of the problem to be addressed and possible solutions will have been identified. Following on from this, the key issues for the AR teams to address are as follows:

Step 1: AR teams need to explore the strategic options available for addressing the potential solutions that have been identified. AR teams need to pay careful attention to; human resources needed, equipment needed (if any), alliances needed to successfully enact the identified solution. It is quite probable that this step will result in the deletion and refinement of the identified solutions.

Step 2: Making it real. Once AR teams select a solution to enact, a pilot of the solution will be conducted. The purpose of the pilot will be to check the actual feasibility of the proposed solution.

2.2.3 PHASE 3: IMPLEMENTATION PHASE (ALSO CALLED PROGRAM DESIGN PHASE)

The first and second phases will have laid the framework for the implementation of solutions adopted by the AR team. The pilot phase at the end of the planning phase should have ensured that the feasibility of the solutions has been assessed. The key issues to address for the AR teams are as follows:

Step 1: AR teams should adopt a step-wise approach to implementing solutions. It's quite possible that the AR teams will have identified a number of actions that are needed (e.g., management training, multisource feedback, renewal of mission, role clarity). It's sensible to start with one solution and to gradually adopt the other as the first one accepted. If the requested action requires multiple actions in order to be feasible (e.g., near miss reports in patient safety and handover reports for incoming shifts), then it's important that multiple actions are given special attention in the pilot phase.

Step 2: AR teams should be open to alternative solutions emerging and/or the extension/limiting of ongoing solutions. In the case of alternative solutions, it's quite possible that an alternative solution will emerge as a result of implementing actions (e.g, more direct contact with supervisors creates the need for conflict management training among managers). Also, enacted solutions may result in the call for the extension of services (e.g., more counselling services for employees) or for the need to limit solutions (e.g., an initiate to promote more communication among physicians and nurses is intensive in the first weeks but eventually both parties are happy for bi-weekly meetings).

2.2.4 PHASE 4: PROGRAM EVALUATION PHASE

Evaluation can be either quantitative and/or qualitative. Not surprisingly, qualitative evaluations dominate in AR due to the fact that the majority of AR approaches involve relatively small numbers of people. However, ORCαB teams can collect within-subject data to utilise quantitative data in their evaluation.

Any evaluation of action research needs to use appropriate methods and criteria. There is a large range of outcomes that can be assessed; authenticity, relevancy, involvement, methodological rigour, practical improvement, transformation of consciousness; that is, understanding, learning, development, and personal growth.

The key to selecting the appropriate evaluation tools is to ensure that they are closely aligned to the goals of the action research. The goals of the AR can be evaluated at two levels; outcome data and process data. Outcome data refers to the traditional data that are collected during an intervention (e.g., satisfaction ratings of supervisors, absenteeism data, burnout levels, needle stick injuries etc.). Process data collection allows us to establish which elements of our AR groups worked. In the ORCαB project, AR teams should collect process data related to Rigour and Quality. The evaluation of rigour and quality connects the evaluation phase with the reflection phase.

2.2.5 PHASE 5: REFLECTION PHASE

Rigour in Action Research[2] refers to the degree to which the processes of AR have been rigorously recorded. Rigour can be assessed by addressing the following questions:

1. What is the world view of the facilitator?
2. Is the AR topic credible?
3. Is the inquiry transferable?
4. Are the processes of the AR team auditable?
5. Have we adequately recorded the decisions of the AR group in the research journal?
6. Is the work accessible to the AR team and other people?

Quality in Action Research[3] refers to the whether the AR has successfully linked its processes to the goals and purpose of the action undertaken. Quality can be assessed by addressing the following questions:

1. Is the AR action explicit in developing participation?
2. Guided by reflexive concern for practical outcomes?
3. Inclusive of a plurality of knowledge?
4. Worthy of the term significant?
5. Emerging towards a new and enduring infrastructure?

These questions are not intended to be exhaustive and AR teams can add other questions that emerge as important. Each AR team needs to decide;

(1) how such data will be collected, and

(2) from whom?

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[2] Adapted from Koch & Harrington (1998)

[3] Adapted from Reason & Bradbury (2001)

SECTION 3. SPECIAL ISSUES INVOLVED IN THE DOING ACTION RESEARCH.

3.1 COLLECTING INFORMATION ABOUT THE PROBLEM

Each ORCαB team should seek to collect data/information in a way that respects the context and insures that busy healthcare professionals are not unduly overburdened. A list of useful approaches previously used in health settings is provided below (Koch & Kralik, 2006):

Direct Observation. Direct observation is an effective way to see and experience the situation yourself and to understand the context of it. A critical awareness about personal biases is needed, which may have resulted from past experience, education and culture.

Seek out the stakeholder. Identify the key stakeholders of your research. Try to understand their experiences/ contextual knowledge and issues and invite their participation. Discover their needs and priorities.

Story telling. Ask questions to people, that promote story telling. Possible questions are: what has been your experience in the past? What has worked? What hasn't worked? Why?

Case stories. Case stories can be stories of individuals, families or a community.

Group meetings. Meetings can be arranged with a community or a specific group of people with common characteristics or concerns. Group conversation can provide you with rich data, impetus and motivation for action.

Understanding context through presence. For example, be with the participants in the area they work. In this way, you will have the opportunity to observe the context, ask, listen, discuss, seek issues, solution, opportunities, and map and/ or diagram resources and findings.

Timelines and change analysis. Try to list major events and experiences with approximate dates.

Shared presentations and analysis. Where local people and/or outsiders at community meetings present maps, models, diagrams and findings.

Contrast comparisons. Invite two groups and ask them to analyse the responses of each other. This can be a useful tool to raise awareness for several issues (e.g gender differences).

We have included the following appendices in order to provide more detailed information on specific research techniques:

Appendix A – Working Principles of Action Research

Appendix B – Story Telling: Analysis Protocol

Appendix C – Using Stories in Action Research Teams

Appendix D – Examples of Group Norms

Appendix A is a useful tool for the initial stages of the AR team, when the facilitator needs to generate group norms or 'rules' that the actions of the group will guide the actions of the group. Appendices B and C are complementary. They provide a guide for AR researchers to both analyse stories and utilise the output of stories as driver of change in action research groups. Finally, Appendix D provides some examples of group norms generated for AR groups.

3.2 FACILITATING ACTION RESEARCH GROUPS

Our role is to facilitate the healthcare professionals to initiate and develop change in their own organisations. It is important to resist the temptation for participants to make us the "experts". It is a process of co-learning, where we are also learning something very valuable. The first action of the AR group will be to establish group norms or group 'rules'. These norms will be an agreed way of working. Examples of group norms are included in Appendix D. It is recommended that these norms/rules be recorded and presented at each meeting. Such norms are very useful for dealing with conflict or communication breakdown in the group. In addition, group norms should allow participants to work through uncomfortable emotions and experiences. The purpose of the group is to validate decisions and actions, and the norms play a very important role in this process.

Good facilitation involves the following:

- Facilitating story telling - until saturation
- Encouraging the AR group to contribute their thoughts as to what the 'rules' of the group should be
- Finding roles for as many people as possible (and rotating them)
- Debriefing at the end of each session and the beginning of the next one
- Focusing on behaviours and try an avoidance of narrow results/performance discussions
- Assisting participants to analyse their present situation-what would they like to keep and what would they like to change?
- Keep reinforcing ownership back to the group
- Stimulating discussion about change rather than suggesting changes

At the beginning, it is advisable to have a minimum of two facilitators. A social scientist and a medical professional is the optimum team. There is no 'magic number' regarding the size of an AR group but a good rule of thumb is; more than 5 and less than 12. Capacity building with people will always result in some threat to authority, therefore good facilitation means providing an 'emotional container'; where the participants can initially 'pour' their anxieties and fears about change. Good facilitation should be more *problem-sensing* than problem-finding.

Self-reflection is a requirement of the action research process. However, it can be difficult for us to share our own assumptions and ideas. Disclosure means sharing our own experiences with the group. Successful facilitation should lead to the AR groups taking increasing ownership of the AR process and the facilitators should find themselves taking a more reflective role as the work of the group progresses. The following questions are useful in aiding self-reflection:

Do the words I use betray my attitudes to the topic?

What unintended outcomes do I bring about through my own facilitation style?

Is control in these conversations important and why?

Can I be vulnerable and have a 'don't know' approach and be open to learning new things?

Can I allow uncertainty to be part of the conversation?

The aforementioned list is not intended to be exhaustive. Keeping a journal of questions such as these during the AR process can be an effective way to track how our own assumptions influence the process. Such a journal can be part of the overall research journal (discussed in detail in section 3.3).

3.3 MAKING A RESEARCH JOURNAL

Process issues are very important in AR. Keeping a detailed record of the meetings and interviews with the ORCαB action research has two major benefits; (1) it provides a accessible record of how the AR process developed which can be very useful when the AR team needs to reflect on the work that us being carried out, and (2) it is an essential record of success and failure that allows the AR team to establish the external validity of the AR process. Therefore, ORCαB teams should keep research journals.

There is no standard format to a research journal, and each AR team should agree on the approach that best suits their resources. However, the following principles should be adhered too:

- The journal is a record of the research process and should insure anonymity for both AR teams and associated individuals. The journal should respect all the ethical principles covered in the ORCαB ethics document.
- The journal should be edited by a minimum of two people, but should be accessible by all members of the AR team. The responsibility for editing the journal can be rotated.
- The journal style should be directed towards an external reader. In effect, the journal should be written in a way that allows for external individuals to easily understand the actions and results of the AR team.

3.4 'SMALL' WINS

Both research and practitioner experience shows that 'small' everyday events have the potential to influence organisational culture. For example, there is considerable research in healthcare indicating that civility is important among colleagues (Leiter, Laschinger, Day, & Oore, 2011). AR teams should not underestimate the power of 'small' events to systematically dominate the work culture in a toxic fashion, and congruently the goals of the AR group can be to address these minor issues in a comprehensive fashion. For example, the aforementioned research about civility in healthcare involved an intervention that reinforced management and senior personnel not to 'roll their eyes' as an admonishment for the mistakes of junior staff.

3.5 ETHICAL CONSIDERATIONS

Facilitators should be aware of the codes of conduct that already exist for conducting research with individuals and groups. Examples include the Nuremberg Code (1947), the Declaration of Geneva (1948, 1994), Resolutions of Human Rights (1990, 1995), the Declaration of Helsiniki V (1996) and the Belmont Report (1979). There are no rigid rules that will guide the complexity of AR. However, AR teams should be guided by the following principles; autonomy, beneficence and justice.

Autonomy: Respect for autonomy require that people be treated as autonomous agents and people with diminished autonomy be entitled to protection. It includes informed consent.

Beneficence: We are obligate to maximize benefits and minimize harm as a result of involvement in the AR groups.

Justice: We should endeavor to seek a fair distribution of the burdens and benefits associated with our research

Relational ethics are the most common challenges that arise during AR. Core elements essential to relational ethics are mutual respect and engagement. Facilitators have an obligation to encourage shared experience, respect for diversity and uncertainty. Finally, Zeni

(1998) provides questions for review and reflection regarding ethical issues in AR. The list of questions is provided in Appendix E.

3.6 SERIOUS PROBLEMS IN GROUPS

Serious interpersonal and/or organisational issues can arise in AR groups. When this happens, the facilitators have three options:

Option 1. *Bring it back to the 'rules' already agreed by the group*

Option 2. *Let the group tackle the problem*

Option 3. *End the AR process and start again in a different clinic*

Option 3, ending the AR groups, should <u>always</u> be adopted when the problems are judged to be serious. There will be a natural resistance to ending the AR groups (especially if significant amounts of time have passed), but facilitators are ethically obligated to end AR groups when the goals of the Action Research become about something not related to AR. In this situation, facilitators should inform the other members of the AR teams as to the reasons for ending the AR. Facilitators should take care to insure that ending processes are not viewed as opportunities to rectify the identified problems.

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APPENDIX A: WORKING PRINCIPLES OF ACTION RESEARCH

Table 3. Working principles of Action Research

Working principles of Action Research	
Principles	**Qualities**
Relationships that are:	Equal Harmonious Accepting Cooperative Sensitive
Communication that is:	Attentive Accepting Comprehensible Truthful Sincere Appropriate Advisory
Participation that is:	Involving Active Supportive Successful Personal
Inclusion that accounts for:	All individuals All groups All issues Cooperation Benefit

APPENDIX B: STORY TELLING: ANALYSIS PROTOCOL (KOCH & KRALIK, 2006)

The analysis can be shaped by the nature and sequence of questions asked. The protocol below provides some strategies for analysing multiple stories and creating a single story line.

Story making is a cyclical process that includes several steps: interviewing each person individually, analysing the transcript and formulating a story line. Each story line is returned to the person and it is discussed with co- researchers. Once all stakeholders have read and made changes, we argue that the final story line has been co- constructed and validated by all stakeholders. Co- construction of the story line shows how ongoing concerns play out in everyday practice to produce coherent selves and construct diversity and difference.

Step 1. Read through the entire transcript to get the sense of the whole

- Read through the transcripts with an "attunement" to both the content of the words and what the words mean in relation to the actual experience of the participants.
- Read each transcript several times to gain further familiarity with words, the voices they represent, the meanings they hold and the order they have been told.
- Try to engage with words of the participants by reflecting on the fact that those words represent the way participants construct their experiences. Remember that participants chose the words and their sequence and you are interpreting the choices they made.

Step 2. With the transcript in front of you commence the analysis of the data.

- First level of clustering. Cluster responses to answer interview questions.
- Second level of clustering. Apart for the answers to the questions you have posed to participants; their answers reveal other aspects of their experiences as well. These have to be grouped separately. Look for similar ideas, experiences among participants and group them in one paragraph. Look (what is going on), think (what is being reflected) and act (what action is proposed) questions/ answers can assist with shaping the analysis. Place data under look, think, act sections to help you shaping the analysis.

- Third level. Answer the question: what really matters? It is important to groups these data under this heading.

- Fourth level. In reading the above paragraphs, what do you think is happening here or what is significant?

- Now that you have grouped the data into questions/responses, into other aspects of participants' experiences, into what matters and you have answered what is significant in each of them, you can determine the *significant statements*.

Step 3. Determine the significant statements

- Identify significant statements expressed by the participants and rewrite paragraphs with the most significant statement at the helm.

- Answer the question: what makes the statement significant? What does this statement tell me about how it is to work…?

- Repeat the question for each of the significant statements. List all significant statements.

- Describe, in a clear, simple manner, what you think is going on to make this statement significant.

1. Use a significant statement as the first sentence and write in your own words what is the aspect of this person.

2. Ensure that each paragraph explores one significant aspect or experience.

3. Each paragraph should begin with one significant statement.

4. Voice the text: weave one, two quotes into each paragraph. A good quote captures the experience of the participant from his point of view.

Step 4. Writing the story

- Order paragraphs into a story line

- Each story illustrates an economy of style (no more than 2 pages of single space text for each story)

> *Step 5. Reading and shaping the story with co- researchers*

- The story should be coherent, engaging and answering the question posed.
- If research conducted in a team, colleagues are asked to read the stories and provide critical comments.
- Each researcher should analyse each transcript separately and then write collaboratively an individual story line
- The story is then given to the participant for further co- construction.

> *Step 6. Reading and co- constructing story with the participant*

- The story can be co- constructed using the significant statements and paragraphs subsumed under the heading of the research question asked. The participant is given the story and is asked to review the story line and make changes.
- The final story is a co- construction between researchers and participants, where it is visible the way ongoing concerns play out in everyday practice to produce coherent selves and construct diversity and difference.
- Validation of the storyline enhances methodological rigour.

> *Step 7. Combining participants stories into a common story line.*

- Compile a list with all significant statements from each of the stories.
- Identify the source of each statement.
- Write the common story line

APPENDIX C: USING STORIES IN ACTION RESEARCH TEAMS

John's story

John Head is a junior doctor suffering from fatigue and sleeping problems. He identified fatigue as something that has been with him through his life but after finishing his residency his symptoms became worse. Fatigue has serious implications for the quality of work he provides.

John was invited in a one-to-one interview. He was asked to describe his story. Central to his effort was his wish:

"I want to have a high quality of life. I want to enjoy when I'm awake fully…I don't want to feel exhausted all day long"

After conducting the interview, the content was transcribed and analysis begun. The first thing to do is to extract significant statements about his experience living with fatigue (each significant statement is written in bold at the beginning of the paragraph). He said:

1. It's like my brain can't do the processing. *There have been a lot of times where I'll be looking, staring at the computer at a blatantly abnormal lab result. You know, say a cardiac enzyme level is 5 instead of 0.5; sometimes I just don't even recognize it. I see it, but it's like my brain can't do the processing that it would ordinarily when I'm awake. Things just don't register.*

2. I have much less patience with patients. *I definitely find myself when I'm fatigued; I have much less patience with patients. I tend to be much more brief in terms of my history and physical exam. I tend to zone out sometimes when I'm listening to people. I tend to probably interrupt more often than I should to try and get to the heart of the matter more quickly.*

3. I may snap at nurses but I don't want to. *I'll have a lower threshold in the morning when I'm postcall and . . . I get a little cranky in the morning and I don't really have much talk . . . whereas if I see them in the afternoon, I can talk to them for a while. And yet I think it negatively affects that interaction (with patients) and as well with nurses. I may snap at nurses but I don't want to but it just . . . it's kind of information overload but . . . you just need answers and you can't screw around with a bunch of B.S. or whatever.*

4. I used to be an interesting person. *I've lost too much of my life during residency. . . . I don't know current events. I used to be interested in history and politics and art. I used to be an interesting person. Now I'm just boring, the only thing I know is the woman who went blind this morning after delivering her baby.*

5. I sort of end up wasting. *You have this list of things you might do and it's like totally overwhelming to go to the dry cleaners. You sort of end up wasting . . . and that might happen for a few days and all of a sudden it's like weeks have gone by and you haven't done anything and that's sort of disconcerting. I mean I hear of people who work a couple of jobs trying to make ends meet that feel that way all the time. I don't think we're unique. But it is strangely anxiety producing. Your days are going by and you have not accomplished all these things. I mean even a simple phone call to the bank or something.* (Emergency medicine, third year)

6. Fatigue affects marriage. *My partner doesn't understand; she wants to do things when I come home and am off-call. My spouse doesn't understand the pressure and the fatigue. It's really hard to get myself to do anything but sleep when I get home. (Ob–gyn, third year)*

7. You're feeling guilty and a bad parent. *It's hard to tolerate what the children do. You're just tired. You want them to go away . . . you want it all to go away. It's like being gone when you are at home. . . . You're feeling guilty that you're a bad parent*

Preparation for the action research group process

This is an example about selecting significant statements and the evidence to support them. Table 4 summarizes the significant statements.

Table 4. Summary of significant statements: John Head

Significant statements from the response to the question" what is it like?":
1. It's like my brain can't do the processing.
2. I have much less patience with patients
3. I may snap at nurses but I don't want to.
4. I used to be an interesting person.
5. I sort of end up wasting.
6. Fatigue affects marriage.
7. You're feeling guilty and a bad parent

John was given his story with an invitation to read it, make changes- if necessary- and return it to the researchers. In this way, his story was co-constructed. When one to one interviews were concluded and each participant received his/her story, the research team compiled a composite document for discussion at action research groups.

The document comprised the individual stories of the participants and a summary of major themes (e.g learning/ cognition, professional life, job performance, professionalism

towards patients, professionalism towards colleagues, personal well-being, and personal life).

APPENDIX D: EXAMPLES OF GROUP NORMS

Group norms for an email action research group (Koch & Kralik, 2006)

- Make sure your email is addressed to the list because we all want to know what you have to say

- Include all relevant information

- Be good listeners without judging each others. We should all read whatever someone has to state, without judging his/her ideas and thoughts. Support and inclusion of everyone within the group is important

- Ensure privacy and confidentiality of group members. What is said within the group stays in the group.

- Refrain from advertising or promoting products or services to others within the group. In unsure, check with the group first.

Group norms for a face to face action research group (Koch & Kralik, 2006)

- Be good listeners without judging others. Support and inclusion of everyone within the group is very important.

- One person speaks at a time. Wait for the other person to finish speaking before you start.

- Be mindful that other people who want to speak should have the opportunity to do so.

- Ensure privacy and confidentiality of group members. What is said within the group stays in the group.

- Refrain from advertising or promoting products or services to others within the group. In unsure, check with the group first.

APPENDIX E: GUIDE TO ETHICAL ISSUES (ZENI, 1998)

Part I: overview

1. Briefly describe your project as you see it today.

2. What is the time frame of your project? Is it a one-shot enterprise or does it involve several cycles? Have you already done a pilot study?

3. What problem does your research address? What (initial) action will you take? What do you hope to accomplish?

4. List the research questions as they appear at this time.

(Questions will be revised or refocused during your project.)

Part II: methods and setting

1. Are you, the researcher, also a participant in the setting where this research will take place? Specify your role

2. What kinds of data will you collect (e.g. field notes, taped interviews, writing samples)? Explain any changes from the way you normally document your practice. Consider how else you could get data on your question. (Can you discuss three alternatives?)

3. What does your research aim to understand? What does your research aim to change?

Part III: 'subjects' and subjectivity

1. Describe the individuals, groups or communities you plan at this point in the research to study.

2. Analyse the power relations in this group. Which people (e.g. patients) do you have some power over? Which people (e.g. doctors) have some power over you?

3. What shared understandings do you have with these people? Do you have personal bonds, professional commitments? Will your research strengthen this trust or perhaps abuse it?

4. Will your study attempt to read and interpret the experience of people who differ from you in race, class, gender, ethnicity, sexual orientation or other cultural dimensions? How have you prepared yourself to share the perspective of the 'other'?

5. Will an 'insider' review your questionnaires or research materials for cultural bias? How will you reduce or correct for your misreading of populations who differ from you?

6. Does your inquiry focus on people with less power than you? How does your project demonstrate mutual respect and justice?

7. What negative or embarrassing data can you anticipate emerging from this research? Who might be harmed (personally, professionally, financially)? What precautions have you taken to protect the participants?

8. Might your research lead to knowledge of sensitive matters such as illegal activities, drug/alcohol use or sexual behaviour of participants? How do you plan to handle such information?

Part IV: risks and benefits

1. Describe the possible benefits of your research – to patients, healthcare professionals or other participants; to society or to the profession.

2. Describe any risks to people participating in this study. What steps are you taking to minimize risks?

3. Show how you will protect the people from whom you collect data through surveys, interviews or observations. For example, participants are usually considered free from risk IF:

   a. they are first informed; they must know the general nature of the study and what is expected of them.

   b. they give informed consent.

      c. they can refuse to participate and they can withdraw without penalty after beginning the research.

      d. anonymity of persons and/or confidentiality of data are protected if appropriate.

4. Describe your method of obtaining informed consent. Who will explain the consent document to the participants? How?

5. Are different kinds of consent needed at different stages in the project?

6. Do you wish to protect the anonymity of participants? If so, it is wise to use pseudonyms even in your field notes. If your report is eventually published, you can also interchange physical description, grade level, gender, etc., or develop composite rather than individual portraits. What are the gains and losses of anonymity?

Part V: ethical questions specific to 'insider' research

1. Which of the research participants have read your proposal? Which ones have been informed of the research orally in some detail? Which ones know little or nothing of this project? Explain and justify the decisions behind your answers.

2. Who else will read your field notes or dialogue with you to provide 'multiple perspectives? Incorporating quotes from other participants, especially when their views differ from yours, can make your work richer, more nuanced.

3. You will inevitably gather more data than you 'need'. Consider why you choose to report some data to a wider audience and why you choose to keep some for your colleagues, your students or yourself. (What do you tell and what do you store?)

4. How will you store and catalogue your data during and after the study? Who will have access? Should you take special precautions with your notes and other data?

5. Will this study evaluate your own effectiveness or a method to which you are committed? Will your findings be confirmed by observers who do not share your assumptions? How will you protect yourself from the temptation to see what you hope to see?

6. Who is sponsoring this research through grants, contracts, released time, course credit, etc.? Will you evaluate the sponsor's programme, textbook, method, etc.? Can you protect yourself from pressure to report favourably on the sponsors?

7. If your study is collaborative, how are you negotiating authorship and ownership?

8. Who is responsible for the final report? Will other stakeholders review your report in draft?

9. Have you decided on anonymity or on full acknowledgement if your study is eventually published? How and when have you negotiated these issues?

Part VI: the Golden Rule

1. What are the likely consequences of this research? How well do they fit with my own values and priorities?

 2. If I were a participant, would I want this research to be done? What changes might I want to make me feel comfortable?