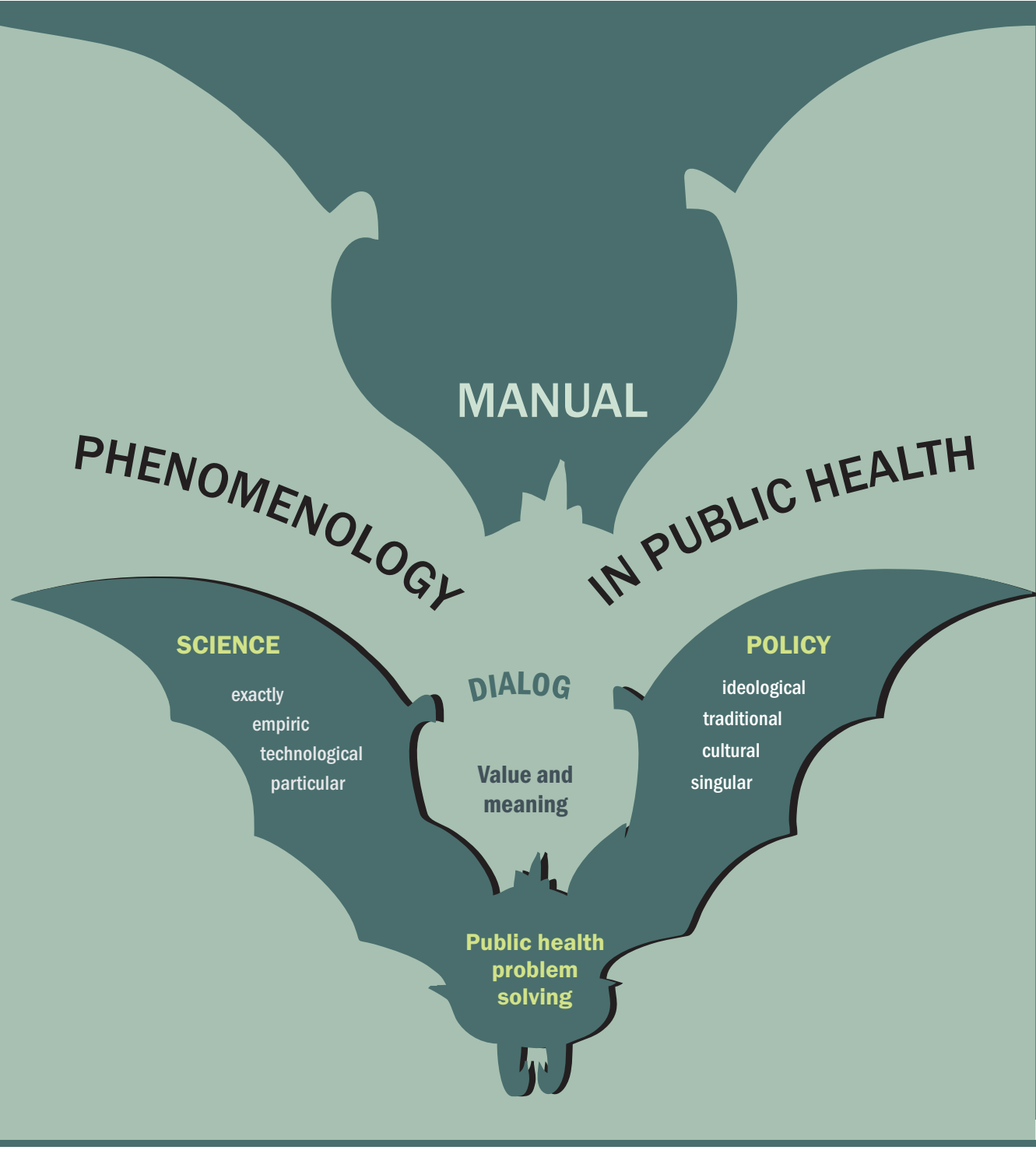
Phenomenology in public health : manual

Vuletić, Silvije; Kern, Josipa

MANUAL

PHENOMENOLOGY IN PUBLIC HEALTH



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Contents

PROLOGUE

Quantitative paradigm is prevalent in scientific and operational public health research. It is a statistical-epidemiological paradigm, or, according to new terminology, a paradigm based on statistics and information science.

The *quantitative paradigm* is a standard technique of public health research in which we *evaluate "truth" by probability theory and statistical significance*. In doing so, the public health researcher must learn the rules of quantitative analysis. The results are often visualized, and such a representation gives a quantitative image of the given public health problem.

However, the public health researcher, in his / her consciousness, is developing a *qualitative paradigm* for problem analysis. The problem is described conceptually, as *reflection*, expressed in words and expressions.

> *Reflection made by public health researcher is understood as creating an image of some perceived object / public health problem with all the actors and their living experience.*

Reflection, made by public health researcher, is understood as creating an image of some perceived object / public health problem with all the actors and their living experience. We can say that by reflection we create our own thought and image about the problem and the world.

> *Phenomenological image is a comprehensive description of a problem, its complexity, both spatial and temporal.*

A public health researcher examines the links between an objective, real event and its subjective, abstract conception of a public health problem. This procedure creates a *phenomenological image* of a certain public health problem. A phenomenological image is a comprehensive description of a problem, its complexity, both spatial and temporal.

This book is presenting a methodology for carrying out the subjective thought process in creating a phenomenological image of a certain public health problem, particularly useful *in crisis situations research and defining public health policy.*

INTRODUCTION

Data is substance of thing hoped for, the evidence of the things not seen.

King James

Everything that exists comes from the mind, is based on the mind, and is shaped by the mind.

Canon

About public health data

Public health is not exclusively a biomedical discipline. At the same time, it is a humanistic discipline, moreover a cultural and political discipline. Public health is achieving its population goals through complex socio-political processes, within the ideology and politics that prevail in a given period of evolution of health care in the community.

> Public health is defined as "the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society" (Acheson, 1988, WHO).

Traditionally, public health research methodology has been based on health survey organization, on applying statistical methods to structured data matrices, and probability theory as the basis of inference. In the era of

Figure 1. Public health content

computerization, public health is requiring for a variety of raw data, structured and unstructured, stored on a wide variety of media in the healthcare system, data collected by doctors and nurses, as well as administrators in health and social insurance system.

Data coming from social networks can also be included. Big data is a new term being introduced nowadays. Unlike massive data, denoting only a large amount of data (volume), big data is characterized by the diversity of sources the data are coming from, and the ways they have been recorded (variety), as well as the speed at which data are coming, originating or changing (velocity).

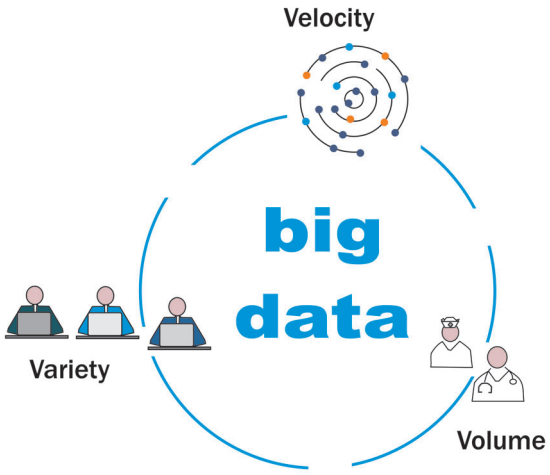

Figure 2. Big data

In a quantitative approach, the researcher follows Galileo Galilei: *"Measure what can be measured, and make measurable what cannot be measured."*

Alternative to Galileo is Albert Einstein's saying: *"Not everything that be counted counts, and not everything that counts, can be counted."*

"There is no qualitative data, everything is binary, 1 or 0". Berg (1989), and Campbell (1974) notes *"all our research is, after all, qualitative, textual."*

On the 447 pages of Darwin's Origin of Species (Darwin, 2000) there is neither single number, nor table. Nevertheless, the text became the basis of the theory of evolution. Darwin described inter- and intra-variability, as well as distribution and correlation, which were described and defined numerically later.

We can say, as raw material of analysis in public health research, we can use words, linguistic expressions, stories, pictures and movies, and numbers

as result of measurement (on nominal, ordinal, interval and ratio scales). There is a relation between words and numbers in the sense that words interpret numerical values.

The meaning of the word is beautifully described in the Gospel of John (Chapter One):

"In the beginning was the WORD, and the WORD was in GOD..... everything became after it, and without it nothing existed.... there was life in it, and life was light to men."

"The word does not refer to certain objects that may have different characteristics in concrete, but to generalized ideas" (Ferdinad de Saussure, 2010).

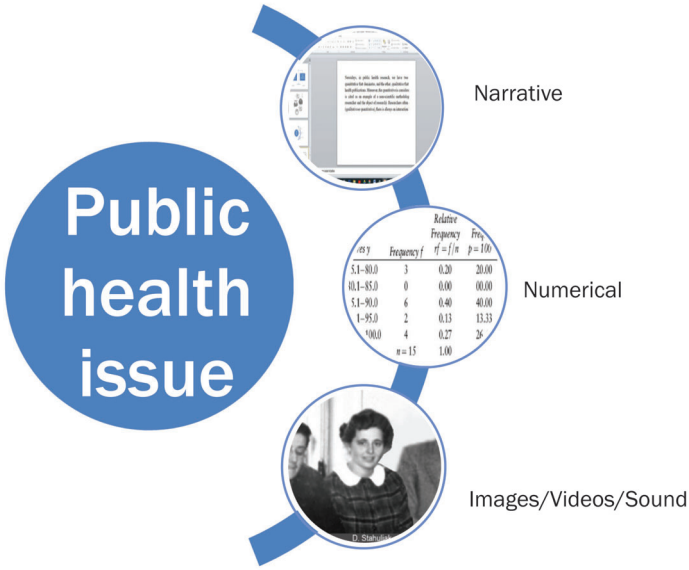

Figure 3. Data types

Nowadays, in public health research, we have two methodological paradigms: one quantitative that dominates, and the other, qualitative that has been overlooked in our public health publications. Moreover, the quantitative is considered as scientific, and the qualitative is cited as an example of a non-scientific methodology (due to the interaction of the researcher and the object of research). Researchers often do not understand that in their research (qualitative or quantitative), there is always an interaction between subject and object. While in observational studies the subject is free, in experimental it is under control. There are two extremes: one is a free in-depth interview and the other is a double-blind experiment.

Qualitative-quantitative approach to research

Qualitative (Qual) and quantitative (Quant) approaches are complementary in research - despite the differences. What makes them different?

1. How to observe the problem? The Qual is looking at the problem phenomenologically and naturally as processes within the system, and the Quant, positivistic, is looking at the facts exclusively.

2. What is the nature of the data? In the Qual it is idiographic - it seeks for a complete picture of the problem, based on a special, individual one. The raw materials of analysis are words. In the Quant, the nature of the data is nomothetic: the raw material is a numerical value on some scale (the rule of additivity and ordinality is demanded), or data as nominal value which enable counting.

3. How is the problem defined? The Qual starts from a problem as a mysterious state defined within a certain system, as conflict between alternatives and undesirable situations. The Quant starts from a claim, a hypothesis, a search for rules (nomothetic paradigm).

4. What is the sample / population? The Qual insists on the whole population or on purposeful sample rich in information - it transfers the results to other research (transferability). The Quant insists on representativeness, and statistical parameter estimates (generalization).

5. What is the theoretical concept? In the Qual, the theoretical concept is the theory of processes in which we consider events, results, and outcomes as input-output processes. In the Quant, this is probability theory - the distribution of random variables, stochastics, the law of large numbers, statistical models of analysis.

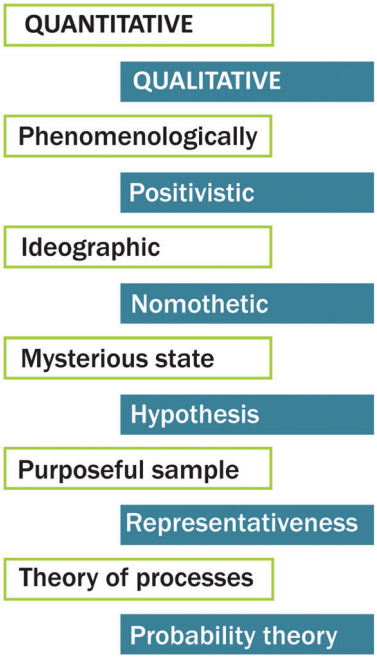

Figure 4.
Meaningful differences between Qual and Quant

OBJECTIVES OF THE PHENOMENOLOGICAL APPROACH IN PUBLIC HEALTH

The primary goal of phenomenology is the study of phenomena, without a given theory of their causal explanation.

Phenomenology is a philosophical movement dating back to the 20th Century. Its main goal is to directly investigate and describe phenomena as consciously lived experiences, without theories about their causal explanation and, as much as possible, without prejudices and assumptions (Encyclopaedia Britannica, https://www.britannica.com/topic/phenomenology).

There are various definitions of phenomenology:

1. Phenomenology is a qualitative research approach that aims to describe the essence of a phenomenon by exploring it from the view point of those who have experienced it, to understand the meaning participants ascribe to that phenomenon (Tehran et al., 2015).
2. Phenomenology is a study of an individual's lived experience of the world that emphasizes that those who have experienced phenomena can communicate to the outside world (van Manen, 2016).

It means that the essence of phenomenology is a reflection on one's own experience.

The phenomenological approach is based on three goals: cognitive, pragmatic, and technical goal. The cognitive goal presupposes the creation of a phenomenological image of the problem in order to raise awareness of the problem itself. The pragmatic goal is to clarify the procedures that need to be carried out to immediate success and benefit. The technical goal refers to the totality of practical means adapted to achieve the goal and solve the problem.

A phenomenological image (or pictorial presentation) is a comprehensive description of a problem, its complexity, both spatial and temporal. Public health phenomenological image is comprehensive and imaginative description of public health phenomena with all their complexity (actors and relationships), and with experience in space and temporal movement.

Cognitive goals

The cognitive goal of creating a phenomenological image in public health is to raise awareness of the public health problem, its constituents, and the possible cause, with emotional engagement related to the problem.

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There are no general rules, no algorithm on how to set up public health research phenomenologically. Depending on the public health problem, the public health professional himself / herself creates and elaborates a methodology for creating a phenomenological picture.

Setting the scene

Setting the scene of a given public health problem begins with thinking about the problem and gathering different types of information about it: from literary, verbal and audiovisual anecdotes and stories circulating in the population to documents regulating the problem (law, regulation, rule book, protocol, manual etc.).

The cognitive goal of creating a phenomenological image in public health is to raise awareness of the public health problem.

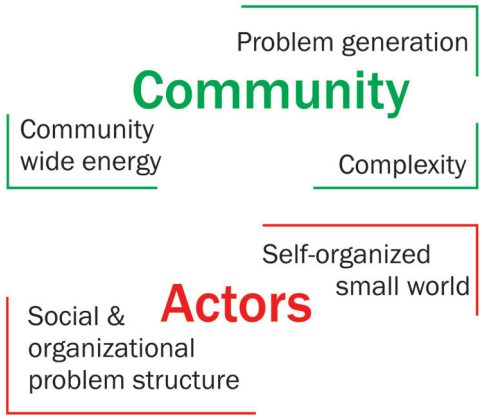

Figure 5. Phenomenological image – cognitive goal

There are three stages to creating a text about a given public health problem, that is, putting the problem on the public health scene.

1. Based on information, the public health professional creates the first description, the first phenomenological image of the problem. Through the prism of social organization and problem structure, the public health professional recognizes the *agents and participants* in the system / problem, their interactions and connections, and where and when the problem has occurred. Agents and participants are different in sense that agents have a more active role and influence in the development of the problem. In reality, agents and participants and their actions represent a *small, self-organized world*, organized independently in a network of social protection systems, social, legal and other problems and pressures in the community.

> *Agents and participants are part of existing public health system / problem acting as a small, self-organized world.*

Example 1. The phenomenon of underage drinking (adolescents as agents) in the phase of their social growing up represents a small organized world, occurring on weekend in parks and disco clubs, or in a variety of other locations spontaneously organized on Fridays. In this example participants are parents, people supplying the adolescents with drinks or allowing them to get drinks.

Example 2. In one of the health care reforms in Croatia, the agents were doctors-concessionaires, doctors in health centers, nurses and public health nurses, health center administrators, social workers, health insurance companies, etc. They all contribute to the complexity of healthcare system. Participants were health care users. Understanding the relations in agents-and-participants network, is what a public health professional needs to evaluate.

2. Recognizing community-wide *energy* (driving force) affecting a group of people, like i.e. emergence of agents with certain behavioral patterns. These agents keep on creating new experiences and lead public discourses. On one hand, the energy is a product of laws and regulations governing the system of agents from outside. On the other side, ideologies, culture and traditionalism participate in the energy from inside of community. All of this produces experience and a pattern of behavior, i.e. energy within the system of agents in health care. In the example of the phenomenon of underage drinking, energy is the energy of the process of growing up young. In the case of concessionaries, energy was initiated by legislation (which introduced the category of doctors in concession) and the privatization process.

> *Energy is made up of ideas, interests and beliefs that support a particular form of behavior.*

3. In the third phase of creating a phenomenological image, the existence of a problem *generator* is explored. For example, whether accessibility of alcohol for underaged is one of the major generators of the problem of underage drinking, or, whether marijuana use is a generator of the development of subsequent hard drug use, or, whether concessionairity is a generator of disappearance of social thoughts in family doctors. Could liberalism be the cause of the problem as a global trend recognized by smaller countries as "westernization"?

In the cognitive phase of the research, the public health professional is moving from the state of "I don't know what I don't know" (about the problem) to the state of "I know what I don't know" (Guba & Yvonna, 1998). It is a key introductory step in phenomenological public health research. This process enables to avoid stereotypical problem solving.

Problem generator is something that potentially transforms existing energy into a public health problem.

To reach the state of "I know what I don't know" a public discourse on a self-organized small world is established. For example, during the health reform (example 2) in the self-organized small world of family doctors, KoHOM (Coordination of Croatian Family Medicine) appears. KoHOM is an example of driving force. This energy consists of ideas, interests, and beliefs that support a particular form of behavior.

Driving force (energy) can be very appealing and, as a rule, directs stakeholders to certain behaviors. We call such a force the attractor of the system. Thus, KoHOM is one example of an attractor in health system reform concerning family medicine. It should be noted that the attractor does not spread in the community by accident. In contrast, such attractors propagate through certain channels that may not be easy to identify. Attractors can be at the core of a particular public health problem, such as the craving (for drugs) in a drug addiction problem in a community or population.

Example 3. As a rule, attractors have a scattered dynamic structure. Successful intervention on the attractor causes the attractor itself to shrink or disappear. The fact that we have not reduced the incidence of addiction indicates that our intervention model in tackling drug addiction is incomplete. Designing an intervention, looking for an effective and efficient model without recognizing the attractor of a particular public health problem, becomes only a formal job.

Attractor is a quality or feature that evokes interest, liking, or desire.

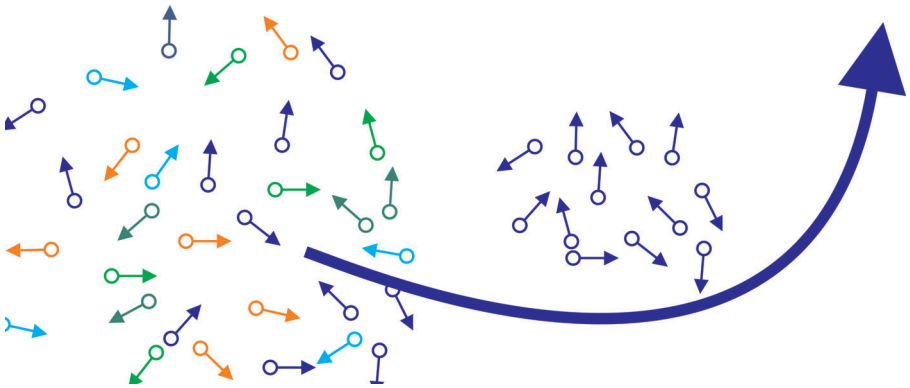

Figure 6. Picturesque view of the attractors

Example 4. Attractors in the Croatian health system

Mapping is the process of connecting various system components and displaying them in graphical form.

There are three attractors in the Croatian health care system in the last hundred years :

- The Stampar's ideology of integral health,
- Liberal-capitalistic, and ever stronger
- Scientific and technological.

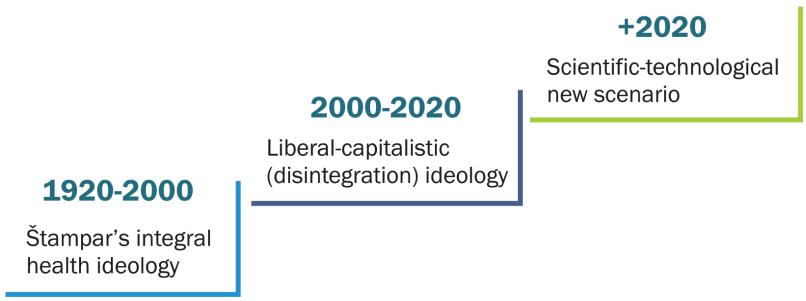

Figure 7. Three Croatian health ideologies as attractors

Elements of all three ideologies will be found in Croatian laws, regulations and manuals. Each ideology specifically requires its own healthcare organization structure and leads to its specific professional behavior. This situation has also led to the restructuring of health centers. The disappearance of the original functions of health centers today is an organizational problem. Health reform that relies on both public and private could be the solution to the problem.

Creating the first phenomenological image

Creating the first phenomenological image of a public health problem means a holistic inquiry into the problem. This is an important link in later deeper qualitative and quantitative trials.

The first phenomenological image of the public health problem is presented in text and mapping, which gives a general picture of the public health problem. Mapping is a process that connects the various components of a particular public health problem (or system) and displays them in graphical form.

The first phenomenological image is public announcement and the establishment of certain public health issues. It should be noted that in creating a phenomenological image, the public health professional must be neutral, free of prejudice and ideology.

Here are some mapping examples:

Example 1. Specific needs of single mother families (Vuletic, 2017)
The problem of single mothers is a hidden problem in public health practice. The mapping of this public health problem as a basis for intervention is shown in Figure 8. Leading agents in this problem are parent(HE) and parent(SHE).

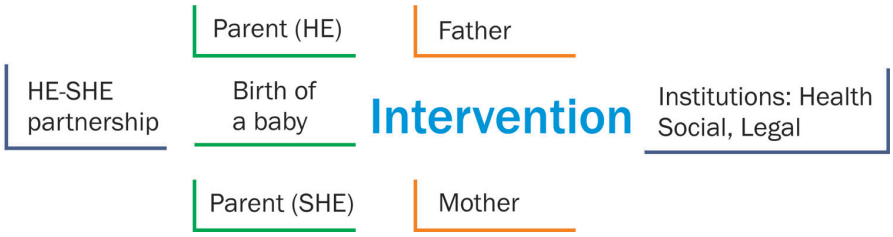

Figure 8. Mapping interventions in solving the problems of single mothers

Example 2. Underaged drinking (Samardzic, 2017)
The problem of underaged drinking is one of the acute problems that needs to be addressed by public health practice. The mapping of addiction factors is shown in Figure 9.

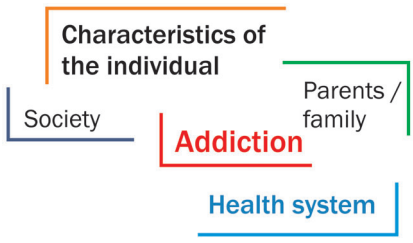

Figure 9. Mapping components of underaged drinking problem

Defining the subject and object of the research

When establishing the subject-object relationship, the subject/s and research object/s should be defined at first. The object of research in public health is a certain public health problem. The subject may be the researcher himself, who directly conducts the research, defines the appropriate problem, and, in analyzing and solving the problem, carries out the complete research process. It's the first-person research. Other subjects involved in the same or other public health problems may also be involved. These may be other researchers and scientists, public health professionals and managers, or any other subjects that is related to the object, or to the public health problem that we intend to analyze. The relationship between subject and object should be defined as unbiased. Sometimes it could be based on specific idea determined by philosophic concepts. Relationships within object, i.e. relation among agents, participants and attributes of the problem, must be determined carefully. The entire later corpus of data in the study is depended on established relationships.

The objects of research in public health are public health problems.

The subjects are the researchers who conduct the overall research process.

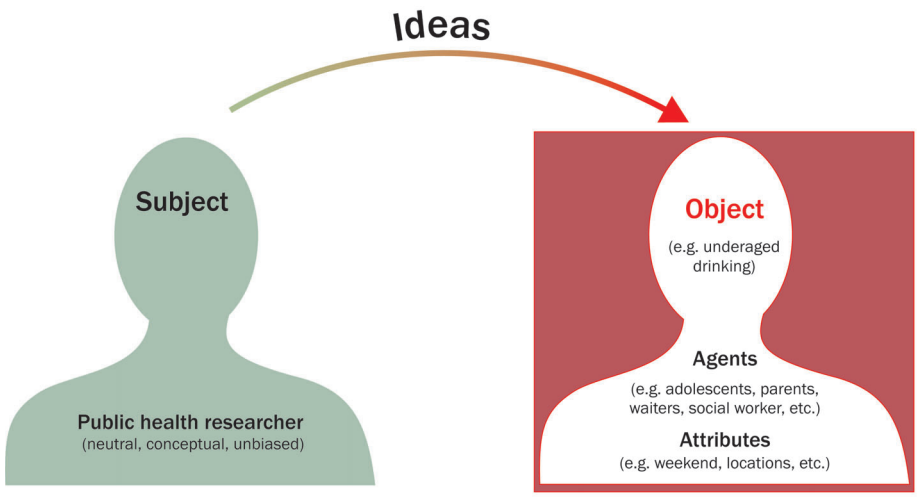

Figure 10. Relationships: "subject – object" and "inside the object"

For example, analyzing the Štampar's integral social and health policy, we see that the basic relation we elaborate in the overall research is the

following: Štampar as a subject – scientist; people's health as the object of analysis. In some studies, there may be multiple subjects and their relationships with the same or different problems. These may be different agents in health care, for example, a family physician as a concessionaire doctor and a physician in a health center but with the same object (patient). During the analysis, we discover a number of opposites and conflicts in their actions towards the patient.

We must clearly distinguish between the interpreter as the subject and what is to be interpreted (the relation to the object). It is a hermeneutic circle between subject and object, within which a complete analysis takes place (see Fig. 10). As an interpreter, the subject directs the analysis toward a network of subject-object relationship. We present the network of relationship between subjects and objects in a schema (mapping). Within this network is an analysis of the components of the phenomenological image of the public health problem.

There are many self-organized behaviors in the health care system, not complying with legal and regulatory behaviors.

The basic strategy of a phenomenological approach is to recognize the dynamics of self-organized small worlds in the healthcare system. This is the only way we build the first phenomenological image of community problems. Only after the first phenomenological image problem we can proceed with qualitative and quantitative research on selected public health issues. The self-organized small world is a unique environment that agents and participants share closely.

Organizational behavior of health care institutions, risk behavior of population groups, and public discursive practices are three elements that are assessed in public health research. To continue the research with a wide range of qualitative and quantitative models of analysis makes sense only after the initial phenomenological image was made.

Pragmatic goals

A pragmatic goal in the analysis of the initial phenomenological image implies the methodologically engaged observation and inquiring of the problems of a given phenomenon. Pragmatic goal is dealing with things sensibly and realistically in a way that is

The pragmatic goal of creating and understand phenomenal image in public health refers to actions to immediate success and benefit.

based on practical rather than theoretical considerations. There are two pragmatic approaches, qualitatively and quantitatively, as two logically complementary tactics.

The first pragmatic goal involves the ability to understand words, concepts and meanings, to create a thought about the "world" of, and to obtain it's an object multisensory image. The second pragmatic goal involves the ability to counting, to consider facts, to study distributions, and to understand an object as a complete physical world. These two pragmatic goals allow us to achieve a complete picture of the objects under study.

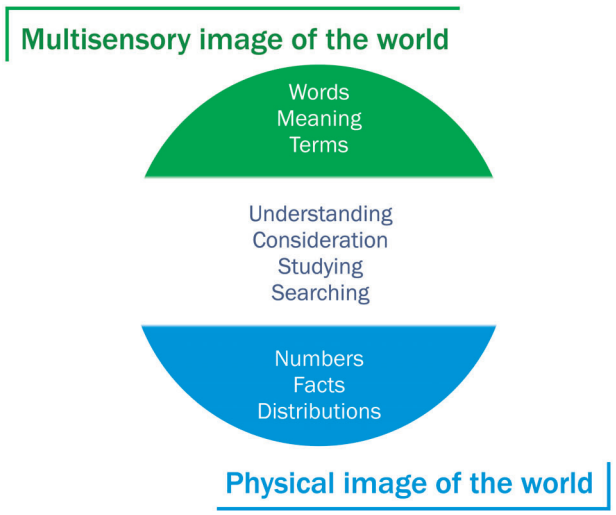

Figure 11. Qualitative and quantitative pragmatic

For example, public health in Croatia is in transition, both ideologically and organizationally. An important feature of this age are changes that are not accepted painlessly by either healthcare professionals or the population. Moreover, there are resistance of all kinds, from denial to frontal attacks on the "new".

Changes in the current health care system in Croatia can be reduced to five directions:

1. The transition from socialism to capitalism and an indication of the gradual entry into post-capitalist society,
2. The fragmentation in health care organization is increasing,
3. There are more and more health risk behaviors,

4. Strong development of new technologies (especially information technologies) and development of a new concept of health care, the so-called “personalized medicine”.

5. Human communities are looking for new meanings of old concepts, for example, notions of social, equality and access to health care.

The complexity of the processes in the health care system is requiring phenomenological image of these five directions in contemporary public health.

So, a new profile of the public health professional is needed:

- “A master for all” (fr. bricoleur), i.e. a researcher who creates a whole from the mass of information available (Denzin & Lincoln, 2008),
- In the research process, the researcher is in communication with the socio-political community, and all the healthcare stakeholders,
- The research uses the naturalistic inquiry method. The qualitative approach is an appropriate methodology for describing, analyzing and understanding health care systems and public health intervention programs.
- Public health professional is in big stress and contradictions of the modern health care system. He is required to understand and explain the interactions of agents, participants and the population in the overarching causality of public health issues.

Public health professional characteristics:

- *Master for all*
- *Communication with community&healthcare stakeholders*
- *Use of naturalistic inquiry method*
- *Understanding & explaining interactions & overarching causality*

There are three current action areas of work for public health professionals today:

1. Organizational behavior of health institutions and organizations,

2. The diversity of social and health risks of population groups,

3. Public discourse we encounter among stakeholders, agents, and healthcare professionals - from the discourse of power and override to the argumentative-dialogical norm of behavior.

Technical goals

There are several possibilities to reach technical goals:

1. Open, free interview, non-standardized, individual unlimited therapeutic intention - knowingness is a big and strong without borders,
2. Guided interview (guided by goal), unstandardized, individual, with limited purpose - knowingness is big but limited,
3. Standardized interview, group intervention - knowingness reduced due to standardization,
4. Closed interview, survey, standardized, intervention in population - knowingness closed within categories,

The technical goal of creating a phenomenological image in public health refers to the totality of practical means tailored to achieve the goal of solving a public health problem.

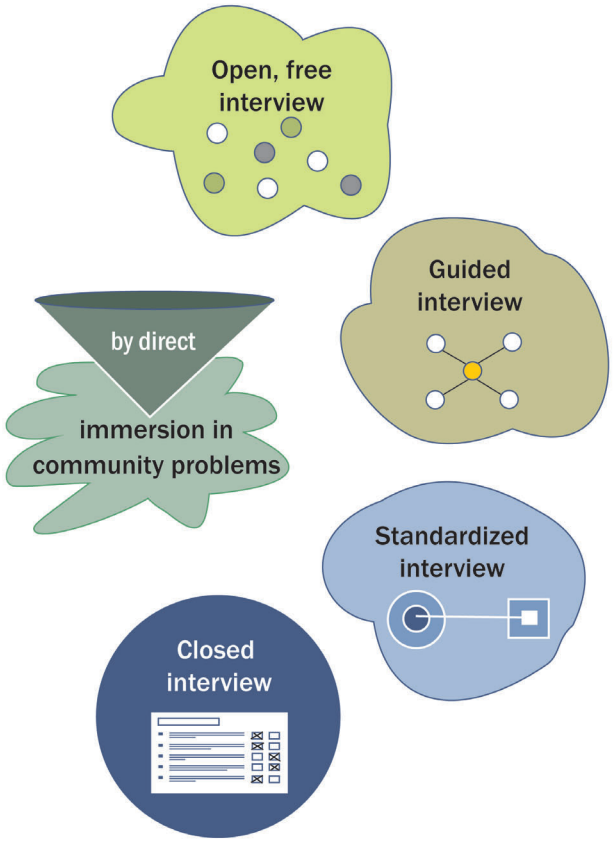

Figure 12. How to collect data?

5. Lively, by direct immersion in community problems (ethnographic), maximally, in depth and essayistic.

A public health professional becomes a Homo Narrans who (using various interview models) forms a narrative interpretation of a given public health problem. The dialectical opposite of Homo Narrans is Homo Statisticus.

Sampling techniques and methods

As a rule, there are multiple ways of sampling. For example, random sampling achieves better statistical representability to make estimates more reliable and accurate. However, in the qualitative approach, the standard is purposeful sampling. There is only one rule in purposeful sampling: elected respondents must be rich in information about the public health problem we are investigating.

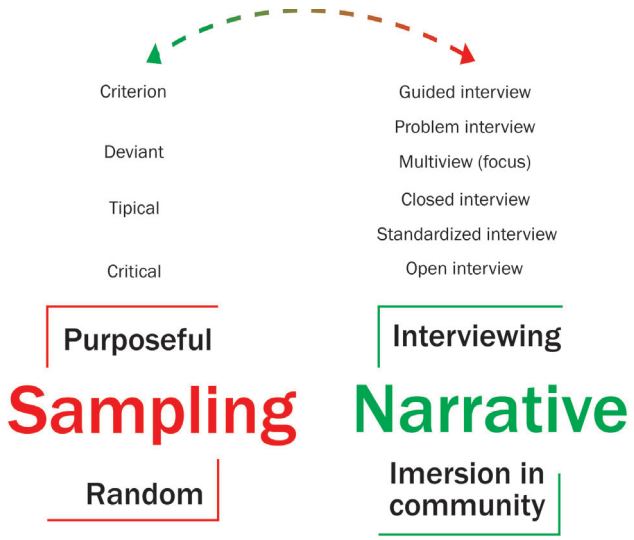

Figure 13. Sampling and narratives

Regarding to sample size - in statistical testing, the sample size depends on the size of the population from which the sample is taken; it depends on the choice of statistical model and the desired confidence limits in estimating the parameters. The size of purposeful sample is limited to a smaller number. It is usually about a dozen or more respondents that we take for interviewing. The sample size depends on its informativeness.

There are several techniques of data collecting based on the selected sample: field observations, interviewing, or group interviewing and opinion poll. We emphasize that the success of these techniques depends on how well the public health professional is trained in these techniques.

Each technique has its own characteristics:

1. Field observations

Observations depend on culture, beliefs, interests, and biases of the public health professional. Public health practitioners should be trained to improve their ability of perception and observation problems (Patton, 2002):

- how to focus attention on particular issues: which agents and participants to recognize, to recognize their relationships, to see and hear what's here and what's there in the real space and time of the problem,
- describe the situation and problems with text,
- to discipline themselves and maintain field notes / diaries,
- to separate details from trivialities – caution (!) that triviality does not prevail in describing the problem,
- to avoid stereotypes in describing a problem,
- determine the theoretical and practical validity of the observations,
- to insist on the rigor of all the procedures we use to observe,
- Identify the strengths and weaknesses of a problem; perceive the level of knowledge about the problem being observed.

In phenomenological observations, two relationships must be recognized: the relationship between subject and object, and the relationship concept-event-behavior. In the Croatian public health, the observation phase is often overlooked. It immediately goes to statistical analyzes. Until it is properly practiced, it is a good idea to stick to the rules within four coordinates: agents and participants, their interdependencies and behaviors, and the place and time where the problem occurs.

2. Interviewing

An interview is a conversation between two persons who exchange information and knowledge about a problem. At the end, both persons become richer in information and knowledge. There is a scale of interviewing

with two extremes, one a highly structured and problem-oriented interview, and the other, a completely unstructured and non-standardized collection of information according to the problem. Which type to apply, it depends on the research problem and the research goals.

We define a problem interview with three mandatory "must":

- To recognize the real problem of the community in which the problem occurs,
- Identify the conditions under which the problem has been developed,
- Explore the goals and options for solving the problem.
- The problem interview should be pre-arranged. The interview must be two-way, and the interviewer must avoid any authoritative appearance.
- A free, unstructured, narrative interview is a creative process where we do not confront respondents with standardized questions, but let the conversation flow freely. Narrative interviews can take the form of a funnel (Halmi, 2005):
- During probing problems, the interviewer asks general questions. In doing so, he gradually gets into the problem. Initially, the interviewer "does not know what he does not know about the problem". By further probing the interviewer comes to this, that he can say "now I know what I'm interested in about this problem". After that the interviewer moves on to the thematic questions.
- Thematic questions are increasingly directed according to the topic and purpose of the interview; credible notes should be made.
- The credible notes contain a high degree of reliability and validity - giving the value to the resulting interview text.

It is advisable that a public health practitioner adheres to these tips when interviewing (Patton, 2002):

- Start with general questions, do not "freeze" the interview
- You can start with foggy questions, but don't forget to defogging them later
- Too many questions lead to great difficulty. Also if there are too few questions. No general recipe. A dozen questions are recommended for one term
- In a multiple site study, be sure that everyone understands you

- Consider whether each question is research-relevant
- Sometimes formulate a frame and then ask specific questions
- Control yourself during the interview, keep notes / questions in hand
- For the sake of reliability, it is desirable to engage an observer as a control mechanism.

3. Multiview, group interviewing

Particular forms of interviewing groups of subjects in the public health research are focus groups. Many structures and subjective determinants of individuals are firmly embedded in the socio-psychological context of the public health problem. Group discussions allow penetration of psychological barrier to get to the views and ideas of the group. There are many assumptions, but all agree that in principle there are two types of group interviews: one in which the Group 6:00 to 10:00 respondents leads deeper and more honest conversation, and others, in which we achieve non-personal contact with several dozen people gathered in an audience where they listen and / or watch a presentation or read some text material. After that, they are being interviewed in small groups.

A special type of group interview is the so-called focus group. A focus group is a form of qualitative research (exercise) that is shaped within a particular cultural, social, or ideological group to determine the response of that group and the attitude it takes toward a product, service, concept, or information.

4. Opinion poll

Categorization is a mental synthesis of essential, common features of similar objects that has scope and content (Croatian Encyclopedic Dictionary, 2002).

As a rule, opinion polls apply “closed” answers, with predefined categories. However, when we find ourselves in a situation where we cannot predefine the categories of answers (and we consider the questions important) then in the survey we ask several open-answer questions. This provides information on the views and opinions of larger groups of respondents. The open answers of such surveys are processed by text-statistical methods.

TEXTUAL ANALYSIS

Text analysis that describes the phenomenological image is a cyclical process. We are talking about a logical sequence:

- Smaller simple terms (micro terms)
- Larger and more complex terms (macro terms or categories)
- Themes
- Grounded theory

In the first two steps in this sequence, categorization is performed. The categorization is followed by the identification of themes and creation of a theoretical framework for the problem.

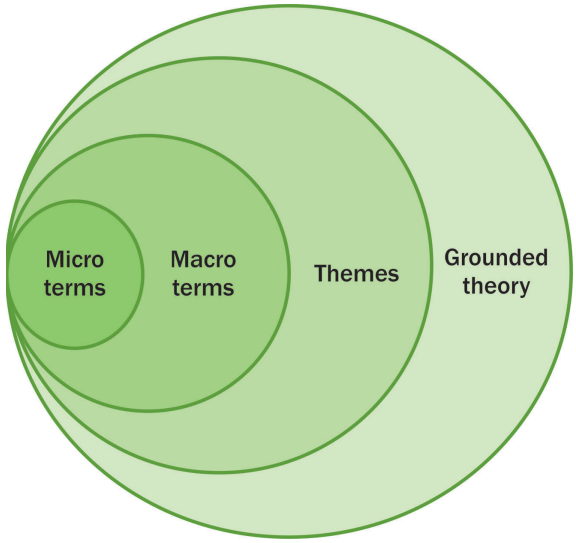

Figure 14. From terms to theory

The concept of categories of thought is a synthesis of the essential, common features of the same object that has the scope and content (Croatian Encyclopedic Dictionary, 2002).

The process of recognizing concepts in the text, simple and complex, is called text deconstruction. The final result of the text analysis is a theory or theoretical explanation of the phenomenon and event we are investigating.

Deconstruction of the text

The deconstruction of the text begins with the recognition of words, thoughts, short sentences, and their extraction from the text and the creation of a list of characteristic words. These words are actually the basic concepts we recognize in the text as micro- and macro- terms. Micro-terms are the first step terms. Some authors refer to micro-terms as codes, first constructs, and the like.

Deconstruction of a text is disclosure of its content.

A further step of deconstructing a text is to derive concepts based on micro-terms. These are the so-called macro-terms or categories. Category is a fundamental concept that contains the most general properties, connections and relationships of being and thinking, and it is an essential element of every text analysis (Saldaña, 2009).

Categorization is a mental synthesis of essential, common features of similar objects that has scope and content (Croatian Encyclopedic Dictionary, 2002).

Categorization is the essence of qualitative-phenomenological analysis. This is the first cycle of textual analysis. The text recognizes the social context, social organizations, i.e. their participants, agents of events, their connections and dependencies in a particular space and time.

By categorizing in texts, we recognize:

- Cognitive aspects or experiences of actors (e.g. ideologies, rules, personal terms...)
- Emotional aspects or feelings of participants / agents (empathy, sympathy, pleasure, anger...)
- Hierarchical aspects, inequalities, conflicts between participants / agents (social, political, educational, financial...).

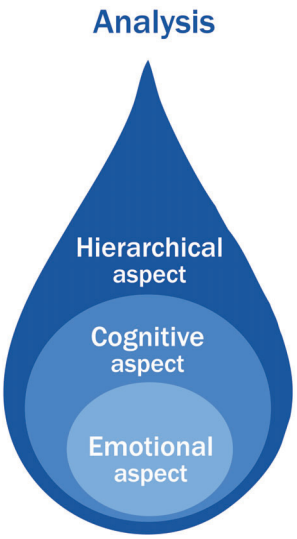

Figure 15. Three aspects in textual categorization

In the analysis, we often look for bipolar terms (by gender, types of health care, etc.). Saldane (2006) identified two categories of violence in his analysis of school violence: violence that uses the power and wounding of the victim, primarily in boys, and violence that acts on emotions, offends personality, which has been observed in girls.

Example of text-micro term-category:

Text	Micro terms	Category (macro term)
... namely, she complained that since her daughter is ill, people in the village look at her differently. They look at her a little with contempt as if she has a contagious disease. She feels they don't understand her and it hits her. She realizes that this is something she has to live with, but she has a feeling that the environment will not accept her...	▪ ill daughter ▪ a different view ▪ lack of understanding ▪ it falls hard on her ▪ the environment does not accept it	stigma

Thematization of the text

The theme is the main thought, the subject, the basis of some of the text we are analyzing. The theme is the outcome of recognizing micro-concepts and categories. Theme itself is not a term. We talk about macro and micro themes. Margin events may also be of interest, so we are talking about marginal themes. The micro-term, category and theme are not disjunctive. It may happen in the analysis that the micro-term develops into a theme. For example, we recognize the term "juvenile violence" at an early stage of the analysis, so that juvenile violence becomes a major theme.

Thematization of a text is the recognition of topics as essential parts of the text content.

Each theme is analyzed from the point of view of its importance in the community, organization or defined population or in a sub-population of respondents: whether it has significance for intervention, planning, whether it poses a risk to the community, e.g. the risk of HIV-positive findings in one or the other gender-oriented group of respondents.

Hermeneutical analysis

Hermeneutics (Greek: Hermeneuin) indicates a unique way of entering into the issues, settings, submissions, inquiries and explication of certain public health issues. Bleicher (1980) defines hermeneutics as a theory or philosophy of interpreting meaning.

Hermeneutics in public health is a method of exposing and explaining the value and meaning of public health actions and interventions

According to Heidegger hermeneutics is the art of interpretation, proof and understanding (Croatian Encyclopedia Dictionary, 2000). In recent philosophy, hermeneutics is a method of exposing and explaining the meaning and value of something and someone. To paraphrase this definition, hermeneutics is a method of exposing and explaining the value and meaning of public health actions and interventions.

Basics of hermeneutic analysis include:

1. The raw material of hermeneutical analysis is texts. The basic and universal hermeneutical problem is to find the symbolic meaning of the linguistic expression, ie to discover the metaphor that is hidden in the texts describing certain public health issues.
2. We present the problem as a network of relationships generated by social actors. This means that in a given public health problem, we need to identify all actors with their intentions, goals and actions.
3. In hermeneutics, we distinguish between the interpreter and what is to be interpreted. It is a hermeneutic circle between the subject and the object of analysis.
4. The interpretation of the problem is, as a rule, an analysis of numerous opposites, conflict situations, and is a discursive dialogic process.
5. Understanding has a circular structure - from the particular to the universal and vice versa. We distinguish the whole as a phenomenon and its components.
6. There is an interpreter horizon and a problem horizon that we interpret. During the analysis, we come to a fusion of the horizon of the interpreter and the interpreted.
7. In our analysis, we constantly oppose understanding of the problem and its explication.
8. The context of the analysis must include the historical and cultural elements of the public health phenomenon.

Theorizing themes – grounded theory

Finally, the question of any serious text analysis is: shall we achieve systematic thinking about a given theme, and generalize the knowledge we have gained from our own data and our own empirics? In other words: shall we engage in theorizing the theme we define as the essence of exploring a phenomenon? As a rule, the qualitative public health methodology is searching for rules of behavior, dependence, and rarely principlesness in phenomena which we are examining.

Theorizing is the process of developing a unique theory of the processes that arise and regulate the problem under study.

So, not nomothetically, but ideographically: we wonder about the meaning of individual events in an occurrence, about understanding what is happening, and understanding why something / someone is happening in the phenomenon under study. In this context theorizing comes down to the so-called data based theory or grounded theory. Narrative research focuses on the phenomenology of the research problem, on the action of individual agents of the problem, especially on their relationship and dependence.

Grounded theory goes beyond descriptive. It represents a unique theoretical statement about the processes that arise and regulate the problem under study. Based on the individual behaviors of the agents / participants, grounded theory generates a general knowledge of the behavior of the phenomenon under study. Grounded theory is limited to processes and actions and their "phase play". Theorizing the results of qualitative research is rarely observed in research practice. Theorizing requires deep field empiricism, empathy for the problem. Many studies do not even get thematic.

The analytical process of creating the grounded theory

Phase	Description
Initial categorization of the text	Extraction of micro-concepts, categories: characteristic words, sentences, states, events
Axial coding, sizing of categories	Creating macro-categories: categories of behavior patterns, flow in time, focusing on something
Selective coding, category naming	Relationship among categories: naming categories (e.g. mental mobbing, financial collapse, etc.)
Theory concepts, theory	Creating a general knowledge of the problem being researched: modeling, mapping, etc.)

QUANTIFICATION OF QUALITATIVE DATA

In further processing of the phenomenological image certain concepts and categories need to be quantified. As a rule, we are wondering if a term or category is measurable or, if not, how they can be measured. A measurement means the conversion of a term (which is linguistically described) into a nominal, ordinal or interval scale of measurement. The conversion of terms and categories are variables, which enables statistical analysis. Data processing continues by applying of descriptive and analytical statistics, resulting in estimates of statistical parameters:

- Indicators - showing the frequency of characteristics / concepts / categories in a given public health problem,
- Estimators - estimating the likelihood of a feature / term / category happening in a given public health problem,
- Predictors - assessing future developments related to a given public health issue.

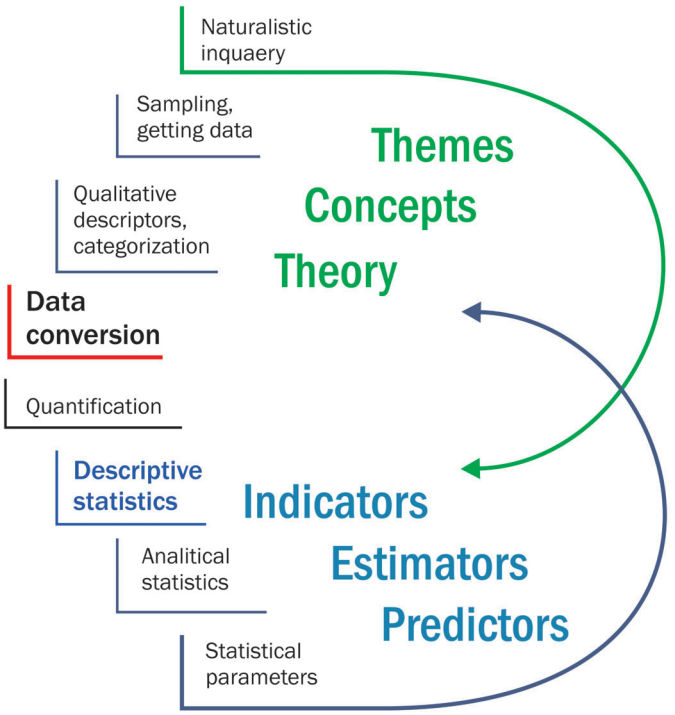

Figure 16. Schematic flow of qualitative / quantitative analysis

INTERPRETATION

Interpreting the phenomenological image means explaining why the observed public health problem manifested itself in such a way.

Analysis is the process of disassembling a complete phenomenological image into its constituent components. It shows WHATNESS, that is, what's really going on. Interpretation means that explanation. Answering the question of why the observed public health problem manifested precisely in such a way.

Reflection is the subsequent reflection on directly perceived content (by comparing, checking, and emotionally).

How does a public health professional interpret a given phenomenological image? He does it by reflection and reflective practice.

Reflection is an act of experience and cognition. This act entails rethinking a particular public health problem. Reflective practice is a mental process of questioning and continuous analysis and decision making during the process of researching the given public health problem.

Kolb (1984) believes that there is no sequence "first concrete and then abstractly" in reflective practice. Rescher (2012) emphasizes that concrete and abstract are not in the causal but in the coordinating relationship. They both take place simultaneously in a cyclical process. Without going into the systematic presentation of models of reflective practice, we cite two models, Borton (1970) and Gibbs (1988).

Borton's model

The Borton's model is formulated as three WHAT: what (are you doing), what for (are you doing), and what next (are you going to continue exploring)? Each WHAT includes additional questions?

WHAT: What is the essence of that research and action, what is actually being done, what is good / successful and what is bad / unsuccessful in the work and research.

WHAT FOR: Why the research is so important, and what is the importance of doing that research.

WHAT NEXT: What else should be done in research and problem solving, what else can be done, what consequences can be expected after action.

The answers to these questions depend on the context of the public health problem and give an idea for concrete action, evaluation, and the meaning and value of the research and action itself.

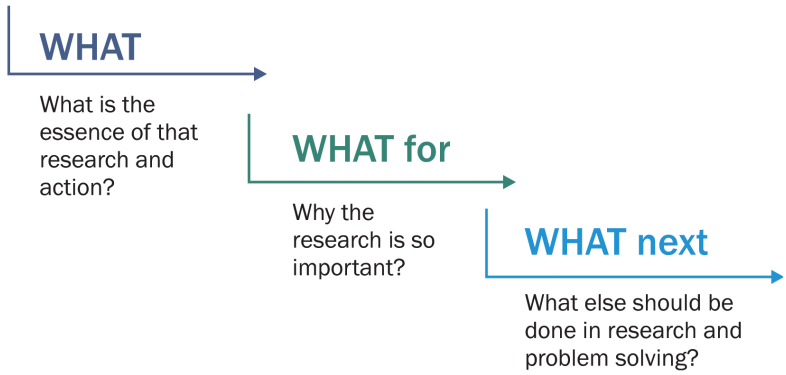

Figure 17. Borton's three WHAT

Gibbs' model

The Gibb' model shows reflection as a cyclical sequence of questions (Gibbs's reflective cycle) (https://www.mindtools.com/pages/article/reflective-cycle.htm):

1. Description

The following questions can help to describe the situation:

When and where did this happen?

Why were you there?

Who else was there?

What happened?

What did you do?

What did other people do?

What was the result of this situation?

2. Feelings

The following questions can encourage actors to talk about their thought and feelings during their experience (comments on their emotions are not allowed):

What did you feel before this situation took place?

What did you feel while this situation took place?

What do you think other people felt during this situation?

What did you feel after the situation?

What do you think about the situation now?

What do you think other people feel about the situation now?

3. Evaluation

Questions for evaluation could be:

What was positive about this situation?

What was negative?

What went well?

What didn't go so well?

What did you and other people do to contribute to the situation (either positively or negatively)?

4. Conclusions

Questions for conclusion could be:

How could this have been a more positive experience for everyone involved?

If you were faced with the same situation again, what would you do differently?

What skills do you need to develop, so that you can handle this type of situation better?

5. Action

Developing an action plan and monitoring implementation.

It is important to note that in contemporary research practice we ourselves create our own model of reflection.

The model of the phenomenological image analysis is equivalent to the epidemiological-statistical model.

In the phenomenological image, in the synoptic view, there is a unity of consciousness and world, thought and reality, the researcher and the object of research. For the public health practitioner, the mind is real and it is real mind.

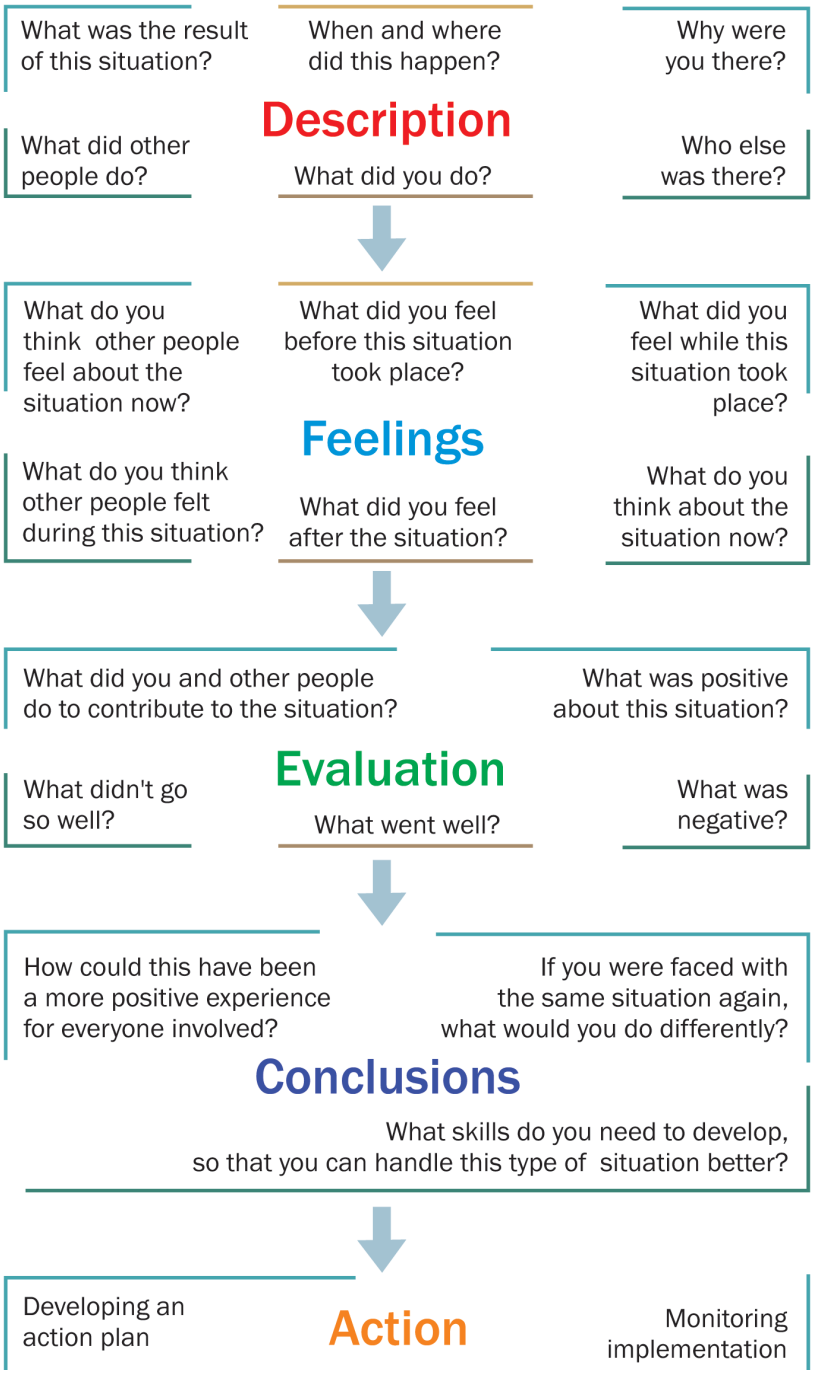

Figure 18. Gibbs' circles

How to read and interpret the description of the phenomenological image?

Reading the text, description of the phenomenological image, requires the successive repetition of the procedures described in Figure 18.

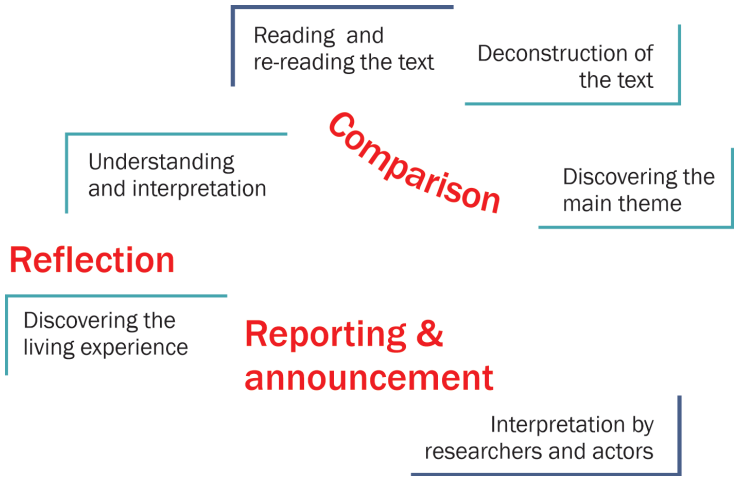

Figure 19. How to read and interpret the phenomenological image?

EVALUATION

Evaluation is the process of valuing something or someone. It requires systematically gathered information from various stages of the research. Any serious qualitative-phenomenological research is full of categories as a basis for thematization. If content allows, the public health researcher begins to theorize the research results.

Evaluation is a process that answers the question of the universality of the solution to a public health problem.

The researcher often asks one or more theoretical questions. Less often a theory is developed about how and why the particular problem occurs in a population. The answer to the theoretical issues means understanding and explanation of the research problem to define intervention to solve this problem. The pragmatic criterion of each study, including qualitative, is: what do I get and how can I assess the results?

The next question is the possibility of generalizing research findings: can a particular experience be generalized as something comprehensive and universal? Answer that question is the key of qualitative evaluation.

Evaluation is also a matter of culture for both researchers and respondents. Researcher and respondents may come from different cultures. They are then in cross-cultural dialogue. This is a participatory research that is completely different from the experimental design of biomedical research. Qualitative public health research is related to specific population groups and to the functioning of systems and organizations. Particularization of the problem is important in such research. Generalization of results, as interpreted in epidemiological and statistical studies, is not applicable here. The knowledge of „the particular", which we gain in qualitative-naturalistic research, is one form of generalization. The knowledge we gain from a purposeful sample of no more than a dozen respondents is an example of naturalistic generalization (of course, if all the norms of naturalistic research are taken into account, that is, if all relationships between actors in time and space were recognized).

Guba and Lincoln (1981) emphasize that it is virtually impossible to imagine how any human behaviors, which are closely related to the context and nature of naturalistic research, could be generalized. They introduce new term, transferability to other qualitative studies of similar problems. If the contexts of the two studies are congruent, that is, similar in nature, form and problem, then we are talking about a logical and problem-oriented extrapolation of results. We call such extrapolation a naturalistic generalization.

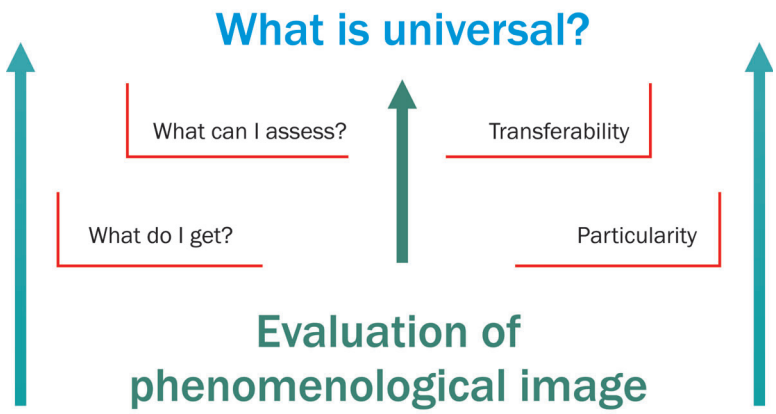

Figure 20. Questions that the evaluation must give answers

In naturalistic research, the researcher was in constant interaction with the object. All questions were answered, but some new questions were also raised. It motivates researchers to deeper and deeper consideration of the problem because no final answers exist.

TIMELINE FOR APPLYING THE PHENOMENOLOGICAL APPROACH IN PUBLIC HEALTH

A timeline is a series of procedures that must be followed when solving a problem.

1. Cognitive goals

a. Setting the scene (page 7)

Thinking and gathering information about a problem, describe all potential actors, energies (driving forces) and attractors, identify potential small self-organized worlds and all that potentially generates (or has generated) the problem;

b. Creating the first phenomenological image (page 11)

Create the initial text and perform the mapping (initial phenomenological image).

c. Defining subject and object (page 12)

Who are the subjects and objects? Add possible new elements to existing text (initial phenomenological image) and mapping.

2. Pragmatic and technical goals (page 13)

Determine the sampling method and applicable narratives; then do a conversation (tete-a-tete) or electronically and, perhaps, fieldwork. Add new elements (interviews and other results) to the existing phenomenological image.

3. Text analysis (page 21)

Make a deconstruction of the text (micro and macro terms, categories, themes, theoretical concept). Complement the existing phenomenological image with the results of the deconstruction of the text, following the basic settings of hermeneutic analysis.

4. Quantification of qualitative data (page 26)

Perform the conversion of selected terms (micro, macro) into a quantitative (or quasi-quantitative) form and basic statistical analysis (indicators, estimators, predictors). Add the results to the existing phenomenological image.

5. Interpretation (page 27)

Conduct reflection according to models (Gibbs, Borton); Add new elements (results of the applied model) to the existing phenomenological image; Make a report (according to Figure 19).

6. Evaluation (page 32)

Answer five questions (Figure 20).

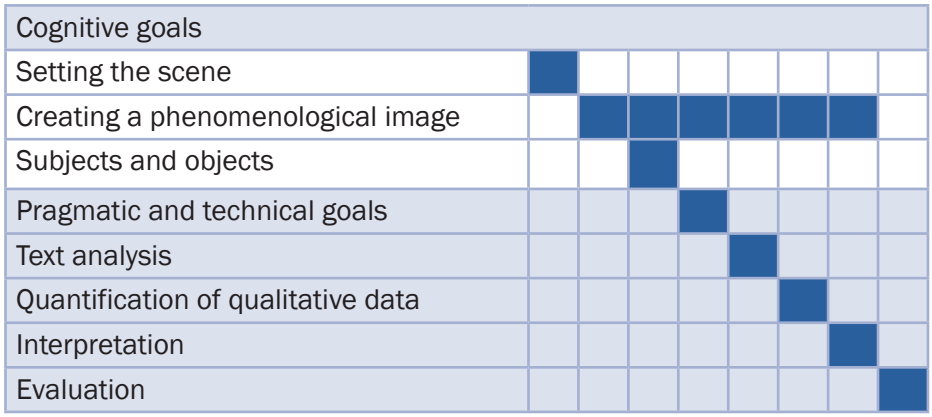

Figure 21. Timeline of procedures

EPILOGUE

The implementation of phenomenology into the routine of public health practice is not an alternative but a new, added value to public health activities and research. It is obligatory to include qualitative phenomenological paradigm in standard quantitative epidemiological methodologies of public health, both action and scientific research programs. As a rule, we conduct phenomenological questioning when a problem emerges. This does not mean that we cannot include phenomenological thought in the course of planning and executing public health activities. Moreover, the phenomenological image methodology is also suitable for analyzing the post-human transformation of global society.

Contemporary French philosopher Morin (2018) writes: "post-human transformation began under the blind pressure of the triple engine of science / technology / economy that drives the spacecraft Earth, while the ethical / cultural / social transformation that is increasingly needed for this transformation remains in its infancy".

Under the pressures of science / technology / economics, we expect significant changes in future healthcare structures. It is enough to mention new disciplines and concepts, such as personalized or precision medicine, big data and artificial intelligence in health care systems, which inevitably require that bio-technical-informational transformation of public health be coordinated and supervised by ethical-cultural-social transformation. One of the engines of such transformation is the phenomenological-qualitative paradigm of public health.

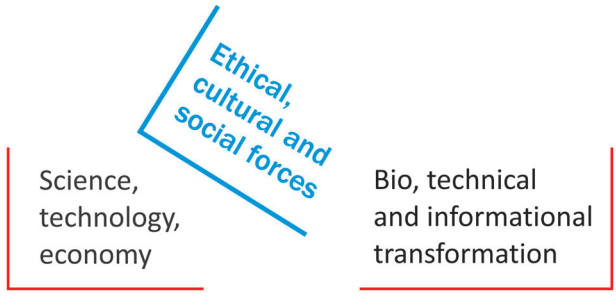

Figure 22. The drivers of the post humane society

In any public health activity, whether it is a scientific-research, political, administrative, educational, reform, it is necessary to assess the ethical-cultural-social forces of the community, and to establish ethical-cultural-social-public discourse in the communities of health care.

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Phenomenology is a resource for reflecting on public health questions based on first-person lived-experience. Resulting from such deliberation, the public health policy requires the appropriate political engagement being in line with it...

The manual “Phenomenology in public health” has a role commensurate to a perfect Neckam's description of the compass. The invention of the compass made it possible to determine a heading when the sky was overcast or foggy, and when landmarks were not in sight. Vuletić and Kern “created” a compass with the conceptually, morally and methodologically “magnetized” needle that might help us when travelling the charted and uncharted territories of research and intervention in the public health.

Stjepan Orešković