Introduction

Qualitative methods are increasingly recognized in medical and public health research [1]. A thorough analysis, leading to reflective stories that can make a difference, distinguishes a scientific approach from superficial conjectures [2,3]. In qualitative analysis, knowledge is developed from experiences by interpreting and summarizing the organized empirical data. Articulating the aim of study, our interpretations are already guided by preconceptions when we interpret data co-constructed by participants and researcher. Intersubjectivity implies that analysis is conducted and presented so that others can follow procedure and progress, and understand the conclusions [4]. Guiding novices through the steps of qualitative analysis, I have developed a strategy for qualitative analysis called systematic text condensation (STC) [5]. I have found this approach easy to share, with positive responses regarding utility, feasibility, and transparency. In this article, I shall present background, principles, and procedures for STC and compare it with related methods.

Giorgi’s psychological phenomenological analysis

Giorgi’s psychological phenomenological analysis [6–7] was the point of departure for STC. Amedeo Giorgi took phenomenology as his foundation to...
investigate objects presenting themselves to consciousness [7,8]. A phenomenological attitude – looking at objects from the perspective of how they are experienced – allows a search for the essence of the phenomenon, using free, imaginative variation to reveal why the object makes a specific example of the phenomenon. A particular object is reduced to its essence through phenomenological reduction. Bracketing presuppositions of the object may allow for critical attention to the experience. Then the essence of the object is described as accurately as possible, including the relationships between the essence and other phenomena [7].

Giorgi exemplifies his method by a study of a learning experience, containing a four-step procedure [6].

1. One reads the entire description in order to get a general sense of the whole statement.
2. Once the sense of the whole has been grasped, the researcher goes back to the beginning and reads through the text once more with the specific aim of discriminating “meaning units” from within a psychological perspective, with a focus on the phenomenon being researched.
3. Once the meaning units have been delineated, the researcher goes through all of the meaning units and expresses the psychological insight contained in them more directly. This is especially true of the meaning units most revelatory of the phenomenon under consideration.
4. Finally, the researcher synthesizes all of the transformed meaning units into a consistent statement regarding the subject’s experience.

**From Giorgi’s psychological phenomenological method to systematic text condensation**

STC is an elaboration of Giorgi’s principles, including four comparable steps of analysis [5–7]. STC is also a descriptive approach, presenting the experience of the participants as expressed by themselves, rather than exploring possible underlying meaning of what was said. Following Giorgi, STC holds an explorative ambition to present vital examples from peoples’ life worlds, not to cover the full range of potential available phenomena. A limited number of participants or accounts provides sufficient data for analysis.

Like Giorgi’s method, STC implies analytic reduction with specified shifts between decontextualization and recontextualization of data. With STC, theoretical perspectives are applied in an editing analysis style [9], where the researcher moves between identification with or bracketing a specific theoretical perspective during the different steps of the analysis process. Giorgi’s reference to a disciplinary perspective (psychology) is, however, more generic than such a theoretical framework.

STC was developed as a pragmatic procedure when I realized that a committed phenomenological analysis was beyond the scope of several of the students, while a systematic thematic cross-case analysis could usually be conducted in a responsible way. Since most of my students and collaborators found the step of condensation hard to grasp, I elaborated a specific instruction for this part of the analysis.

**Procedures for analysis according to STC**

Below, I present STC in detail, emphasizing practical procedures [5]. The presentation is supported by examples (indented in the text) from a fictional interview study (10 semi-structured interviews with people diagnosed with irritable bowel syndrome aiming to explore patients’ worries related to digestive symptoms). Analysis is conducted stepwise with interviewing, and the example presents analysis of the first four interviews, with 40 pages of transcript.

An everyday metaphor complements the presentation: let us imagine a pile of dirty and worn laundry as a starting point. We shall wash and sort the soiled clothes, and the clean clothes will be placed in a chest of drawers. The chest of drawers was delivered flat-pack and needs to be assembled, and the drawers must be adjusted for the best fit for different types of clean clothes. Every drawer is given a label indicating the content. We adjust the label while observing what fits together in each drawer. The sorted clothes are used to develop recycled fashion clothes, which are also given names. Finally, the fashion clothes are exhibited. The dirty laundry is comparable with the audio-recordings of the first four interviews. Raw data are cleansed through transcription, as when the laundry undergoes the program for coloured fabric. The process of analysis is initiated from a pile of clean clothes in all colours.

1. **Total impression – from chaos to themes**

First we establish an overview of data. We read the 40 pages of transcript to get a general impression of the whole, looking for preliminary themes associated with participants’ worries related to their symptoms. At this stage, we try to bracket our preconceptions, comparable to Giorgi’s intention of remaining atheoretical at this stage, while still admitting an interpretative position determined by research question and professional discipline. We shall encounter data with an open mind, with a sharp awareness to the participants’ voices. To take up a bird’s-eye view,
the data amount must be manageable. This is one of the reasons stepwise analysis, before completing data collection, is a smart strategy.

This initial step is accomplished in an armchair or sofa, resisting all temptation to systematize. When finished, we ask ourselves which preliminary themes can be identified in the material – four to eight matters concerning the participants in relation to their bowel symptoms. (The numbers are intended as pragmatic indications for an adequate level of ambition at each step, established during my own experience of teaching STC.)

Browsing the transcripts for the first time, our attention was attracted by themes such as “cancer?”, “growling”, “social interaction”, “an inflammation in my body”, “what will happen with me?”, “stress”.

Analysis benefits from being conducted by more than one researcher – not for consensus, but to create a wider analytic space. After reading the full text from a bird’s-eye perspective, each researcher lists his or her preliminary themes and negotiates confluent and diverging issues. Attend specifically to themes where disagreement arises between researchers. The most exciting findings are not necessarily where the researchers agree. It is well invested time to discuss how each researcher understands the content and meaning of the preliminary themes, and whether and how they relate to the research question. The discussion provides adjustment of the names of the preliminary themes. Three to six of these are given priority for further analysis. Preliminary themes are standing points for organizing data, but do not constitute categories or results, which require further elaboration with systematic, critical reflection.

Returning to the laundry, your task is to browse all the pieces of clothing – check the content of the pile of clean fabrics and start thinking which patterns would be useful for sorting the clothes. We can classify the laundry after the type of clothing, with socks, underwear, T-shirts, blouses, and sweaters in different piles. Or they could be sorted after their owner, with piles for Jim, Ellen, Bob, Pat, and Tom. Colour could become another code group. We might, for instance, add “growling” as a separate code group presenting aspects of the same phenomenon. Or we might realize that the code we originally chose is not sufficiently accurate to include descriptions of what we are looking for. Be very flexible in the coding procedure. It is ok to change your mind many times.

Then we start coding, which includes identifying, classifying, and sorting meaning units potentially related to the previously negotiated themes. Coding implies decontextualization, temporarily removing parts of the text from their original context for cross-case synthesis with the themes as road signs. We identify meaning units and mark them with a code – a label that connects related meaning units into a code group.

During coding, the names and features of the code groups are elaborated from the themes from the first step of the analysis. Codes should not be replicated from the interview guide topics, but cultivated during coding to transcend previous preconceptions and develop understanding.

We might realize that the code we originally chose is not sufficiently accurate to include descriptions of what we are looking for. Be very flexible in the coding procedure. It is ok to change your mind many times. Therefore, do not discard too much text as non-meaning units too early on in the process – rather take too much than too little. What was originally coded as “cancer” perhaps deserves recoding to “serious illness”. Code groups appearing to cover two or more distinct phenomena are split, while other code groups presenting aspects of the same issue are lumped.

We might, for instance, add “growling” as a separate aspect of “social interaction”, since participants are worried by the effect of growling for social interaction.

Beware that the number of themes from the first step, organizing the code groups in the second step, is not too extensive.
At this stage, we also consider whether the code groups represent phenomena of comparable classes. In the example, we aim for descriptions of symptom worries, which we for teaching reasons here might call apple, pear, banana, grape, and kiwi. What does this fruit metaphor mean? When I serve you a plate of fruit, you do not expect boots or bus tickets to appear.

We also reflect upon commonalities and differences within and across the coding groups. A hindsight look at preconceptions and theoretical frame of reference may help us remove a code group that is very different from the others, or refine a code that only mirrors our previous knowledge.

In our example, we proceed with code groups that somehow reveal the symptoms' possible impact on the future (“serious illness”, “social interaction”, “inflammation in the body”, “what will happen”), while the code “stress” appears as foreign and is removed from analysis.

Creative development of codes, where you gradually change the sorting principles as you become aware of what the meaning units tell you, requires flexibility, especially initially. An iterative process (three steps forward and two steps back) will allow you to benefit from the increasing understanding provided by data. A decision trail is an important tool to document your choices. When you got lost, it is simpler to make a swift return and enable fresh choices if you have recorded the major paths. Without a record, you more easily jump forward even when your codes are not sufficiently creative [5]. The decision trail supports reflexivity, so that the researcher later will be able to report selected issues necessary to make the process transparent. The analysis process can, however, never be fully articulated.

At this point, we can imagine the adjustment of number and distribution of drawers in the chest while noticing what kind of laundry ends up in each drawer. Labels are correspondingly adjusted. We need numerous blank labels available, so that we do not adhere mindlessly to the first sorting system that comes along.

In our example we finally sort the meaning units according to these codes:

- fear of serious disease;
- gradual social isolation;
- proliferation to the rest of the body;
- deterioration;

As we progress, we find sections of text that indicate that we should also code:

- inheritance.

When we add or change code labels, we return to the meaning units already reviewed, for instance to include all meaning units conveying participants' symptom worries related to parents or children. Flexible and systematic coding is simpler with a limited amount of empirical data – here starting from 40 pages of transcript, compared with the final data from 10 participants, constituting 100 pages of transcript.

One meaning unit may be coded under several code labels. Yet, if double or triple codes frequently appear, codes are not sufficiently distinctive and should be reconsidered. As we progress, we observe that each code group comprises different nuances and deserves sub-grouping or splitting. Some prefer to split codes as part of the coding process. However, since we may then lose sight of the whole, I recommend postponing this operation to the next step of analysis. So far, you should maintain a limited amount of code groups, labelling them as distinctively as possible, without too much overlap. Coding can be conducted in different ways – manually by marking text elements in the material by a colour or number or pile, and cutting these sections out of the transcript, or with software programs. Software can help you organize extensive data, but does not necessarily offer the overview needed to notice distinctive or original patterns. Regardless of how coding is conducted, we maintain a complete version of the transcript that is neither coded nor decontextualized. In the end our findings are assessed in relation to this wholeness – recontextualizing.

Progressing from raw data to themes in Step 1, and then from themes to code groups in Step 2, we recurrently try to identify tacit rules we apply for establishing the different codes, and which criteria we actually use while including or excluding meaning units in each code group. Transparency is enhanced by admitting that there is always tacit logic, which we follow without being aware of it. With the laundry example, we may ask our codes, sorting principles, and subsequent code groups questions such as: Did I organize a pile of different types of clothes? What exactly do I mean when I say “socks”? The decision trail is used for gradually listing more or less elaborate definitions of the codes. Creativity will benefit when you are able to work inductively, first coding and then see what became the result, rather than the opposite where you first define a code and then sort. If you are not able to provide a definition that you can articulate, you should not expect the reader to be convinced about your codes being adequate or accurate. Code groups and code labels are merely means, not the goal. Several steps of the analysis process...
requesting interpretation, summarizing, and abstraction still remain.

3. Condensation – from code to meaning

The third step of analysis implies systematic abstraction of meaning units within each of the three to six code groups established in the second step of analysis. A reasonable balance between code groups enables analysis. At this stage, empirical data are reduced to a decontextualized selection of meaning units sorted as thematic code groups across individual participants. Data no longer appear as 40 pages of transcript, but are organized and reduced to a few code groups containing meaning units with the capacity to reveal aspects of worries experienced by patients with digestive problems.

Within the laundry metaphor, each of the code groups represents a drawer, each of them containing different sorts of clothes. The previous step of analysis has made sure that each of the drawers differs distinctively from the others. Now, we start sewing together the old, clean and sorted clothes of each drawer, as a starting point for the new fashion manufacture intended for exhibition. During this step, each and every piece of clothing is supposed to be recycled. It is essential to proceed very systematically.

With Giorgi’s method, the transformed and condensed meaning units are abstracted by rewriting the contents [6]. Even with the limited amount of empirical data in stepwise analysis, such a procedure is very detailed. STC takes each of the code groups as an analytical unit for further abstraction by condensation of content. Starting with the code group where your enthusiasm is most concentrated, you provide this challenging step of analysis with energy. With comprehensive and relevant data, the meaning units compiled within this code group will demonstrate a diversity of nuances describing different aspects of meaning.

In the code group “fear of serious illness” we may for example find meaning units dealing with life-threatening disease as cancer, extensive bodily consequences of illness such as stomia, or terrible images of a bursting belly.

Now we sort the meaning units of the actual code group into a few subgroups. Which subgroups will provide access to a relevant focus of attention depends on the study question and the interpretative perspectives. Together, we negotiate the priority of two to three subgroups. For a while, the subgroup is the unit of analysis. Reviewing every meaning unit within the subgroup, we reduce the content into a condensate – an artificial quotation maintaining, as far as possible, the original terminology applied by the participants.

Let us imagine that we put together old clothing in a way where the front and the rear side of the new fashion manufacture are created, while any piece should be included where it fits best. Although grounded in empirical data, the condensate is an artefact, comprising the content of every single meaning unit by transforming them into a more abstract format. Writing the condensate, first-person format is applied as a reminder to represent every participant who provided information on this specific issue. The condensate is a note in progress, providing a point of departure for elaboration of results in the final step of analysis.

I start by finding a rich and vivid meaning unit, then adding and editing text from the remaining meaning units around this text. I put aside meaning units that I am not able to incorporate in this condensate so far. Later on, I decide whether it belongs to this or another subgroup, whether it actually challenges my whole system of code groups, or whether it is not a meaning unit after all. In this way we review and abstract the complete amount of empirical data in a systematic way, while continuously asking what these text elements tell us about the study question.

A condensate from the subgroup “life-threatening disease like cancer” under the code group “fear of serious illness” might look like this:

I am not able to dismiss the thought that this is actually cancer. No matter what the doctors say, I know that this is much more serious than just nerves. My uncle also had these symptoms, and he died from gall bladder cancer. Cancer is a terrible condition – every time my stomach swells, I worry about how this will end. My father died suddenly during a mountain hike – I would really prefer that kind of outcome instead of becoming dependent and overwhelmed by pain the last period of my life.

Quotation marks should not be used here – the condensate is not a quote, but a text amalgamating the content from the meaning units of this subgroup. When a condensate is finished, we identify an authentic illustrative quotation, for example

“As painful as my stomach actually is, this cannot be anything else than cancer. At least, it is not my nerves.”

Then we review each of the remaining subgroups within the same code group in a similar way, leading to two to three aspects representing the thematic content of the code group. The same procedure is
followed for each of the remaining code groups. During this process, names and borderlines of the code groups are adjusted, according to the evolving understanding.

4. Synthesizing – from condensation to descriptions and concepts

In the fourth step of analysis, data are reconceptualized, putting the pieces together again. Synthesizing the contents of the condensates, we develop descriptions and concepts, providing credible stories that can make a difference by elucidating the study question [2]. During Step 3, we managed disconnected text elements. Now we make sure that our synthesized results still reflect the validity and wholeness of their original context.

Starting with the condensates and quotations from each subgroup within a code group, we develop a story about the phenomenon grounded in the empirical data as an analytic text presenting the most salient content and meaning. The researcher takes the role of a re-narrator, writing in the third-person format. This analytic distance reminds us that we as researchers are responsible for our interpretations. Subgroups are put forward as analytic text in separate paragraphs yet no subheadings, each of them illustrated by relevant quotations. A few particular examples embedded in the analytic text provide additional illustrations of the results. Within the laundry metaphor, we open each of the drawers, recognizing what we put together at the previous step. These textiles are now being given their final design as a new garment representing a systematic recycling of all the usable old clothing. Condensates from subgroups maintain expressions originally used by participants. These are not our results, but points of departure for analytic texts in progress. Neither are quotation results, but illustrative text elements. For example, an analytic text about fear of cancer might look like this:

Several participants mentioned that they pondered a lot about their symptoms as potential indications of cancer. Some emphasized that it was difficult to understand that stomach pain of such intensity could be harmless. A woman of 42 years had recently watched a TV program with the message of how important it was to see a doctor as soon as the stools changed character. The last ten years, her pattern had alternated between constipation and diarrhoea, while her doctor had responded as if this was all trivial. Our empirical data included a number of amazing stories from participants about relatives and friends who after all were diagnosed with cancer after a long period of symptoms. Ventricular cancer was perceived as especially serious.

The analytic texts constitute sections of the results paragraph. The writing style should convey the multivocal outcome of stories synthesized through cross-case analysis – something different than a series of fragmented stories put forward in a line. At this step you may realize that some subgroups were not sufficiently firmly grounded in data to justify this kind of summary. These are reconsidered as potential material for the analytic text, maybe within another code group. Analytic text for each of the code groups is reconceptualised, returning to the full transcript, where we validate whether our synthesis and the illustrative quotation still reflect the original context appropriately.

Results are communicated not only by the analytic text, but even further concentrated in the category heading of each code group. Using laundry talk, we elaborate an adequate and precise name of the innovative aspects of the new garment designed from a relevant selection of recycled old clothing. Your category headings should provide brief and expressive statements of your most significant interpretations, not neutral labels that just announce the domains of your findings. Developing your results towards this level is an essential part of analysis, supposed to express a highlighted perception of what this study adds. The category heading is our final result.

In our example it might be called “trivialization of perilousness”.

Perhaps not all the code groups hold the capacity for flashy category labels. If so, it is better to develop one or two really innovative concepts than desperately trying to identify very original category headings for all code groups. However, if it is difficult to name your results, it might also be difficult to understand their originality, and therefore maybe an indication of analysis not yet finished.

Also the category headings should be reconceptualised according to the full transcripts. We should not expect to identify exact associations to each participant, since cross-case results are the outcome of multivocal synthesis. Yet, noticing concepts or expressions that are difficult to trace back to the original data, we should stop and reflect. Finally, we search systematically for data from the full transcript that might challenge our conclusions.

Analysis also includes an assessment of findings compared with existent research findings and theory. This is usually undertaken as part of the results discussion. Hence, the results section is not finished until it has been reviewed according to what is known from before. If similar interpretations have already been presented by someone else, we cut
down priority on this part of the text, with more attention to information carrying more original answers to the study aim. We also check whether our findings actually challenge our preconceptions. Did analysis lead to unexpected and surprising findings [10]? Did theoretical reflections provide a gateway for new understanding of the stories told by participants? In medical research, theoretical elaboration of the interpretations too often is neglected.

Further sequences of analysis.

Stepwise analysis during data collection sustains your overview of the empirical data and enhances your possibilities of sharpening focus and aims. Such a strategy prevents “the 1000 page problem” – a disorganized and large overload of partially irrelevant data, of which the researcher will never accomplish a responsible analysis [11].

Be careful in the selection of the first interviews in terms of heterogeneity in relation to the study aim. Interpretations from Steps 1–2 of preliminary analysis inform further sampling and the subsequent interviews. Limit the preliminary analysis to themes, codes, meaning units, and then continue with the rest of the data before conducting further analyses down to categorization and recontextualization. Modify your interview guide according to what you learn from preliminary analysis of the first interviews, where you often notice a more distinct focus of your aim.

Next sequence of analysis is then conducted, starting by reviewing code groups identified during preliminary analysis. Then review the additional data in whole, according to Step 1 presented above. One or more additional preliminary themes might then appear, or the new transcripts may call for adjustment of existing code groups and subgroups. Meaning units are identified and coded according to Step 2. In Step 3, the sorted meaning units from the new transcripts are included into the existing code groups from the preliminary analysis, although adjusted correspondingly.

Code groups, subgroups, and condensates are flexible entities, ready for moulding and reorganization as new patterns appear. These items should not be preserved as stable bodies, untouched by the increasing understanding provided from the empirical data. Completing analysis by summarizing the findings, according to Step 4, in each subsequent sequence of analysis, you easily observe when analysis approaches a conclusion: that is when findings, firmly grounded in empirical data represented by the condensates, provide coherent stories. The decision trail supports your reflections on whether your adjustments have brought your analysis forward, or whether you should return to previous points of departure.

“Saturation” is frequently mentioned in qualitative methodological discourse. Reviews reveal that this concept is often poorly specified and far from corresponding with the original meaning of this concept [12]. Glaser and Strauss were the first to present saturation as an integral part of analysis procedures in Grounded Theory (GT) [13]. Their constant comparative method implies that every new observation is compared with previous data to identify similarities and differences. Saturation is achieved when further empirical data add nothing more compared with previous data. It is perhaps tempting to imagine the point of saturation as objective and indisputable, at least from a reviewer’s perspective. However, one researcher may regard the case as closed, while another colleague, perhaps with a less thorough knowledge of the field or with empirical data of more inferior quality, may be more impressed of what comes next.

Furthermore, the epistemological assumption of the saturation concept – that a circumscribed and total amount of facts is available and necessary for conclusions, is questionable. Such an understanding opposes the social constructionist foundation of qualitative research, where knowledge is partial, intermediate, and dependent of the situated view of the researcher [14]. Hence, it is not only deceptive, but also methodologically erroneous to aim for a total and final picture where there is nothing more to be added. The strength of qualitative methods is to develop knowledge about particulars within the whole, even though transferability is important also for this kind of knowledge [3]. Sandelowski claimed that the case study (N = 1) is the basic unit of analysis in any qualitative study, independent of the amount of empirical data [15].

The original purpose of the saturation concept was to secure analysis drawn from sufficiently rich and heterogeneous empirical data – an argument comparable with the power calculations needed for quantitative studies. However, the operationalization of this as saturation being achieved when there is nothing new is questionable. It is more important to establish an adequate and information-rich sample providing coherent stories, firmly grounded in empirical data, than to define what is needed by means of numbers of events or perceived fullness. For a proper analysis, we need neither too many nor too few Ns. With STC, the first step of analysis is jeopardized when N is too extensive. The best analysis comes out of empirical data containing abundant and diverse accounts of what we intend to explore. A rule of
thumb is that the sample should be sufficiently large and varied to elucidate our aim [16].

For an explorative study, we do not head for a complete description of all aspects of the phenomenon we study. We are satisfied when a study opens some doors to hitherto unknown territory by presenting examples that contribute to new understanding. If this is not the case, we proceed with further recruitment, data collection, and repeated sequences of analysis. The repetitions of such a stepwise process can be perceived as unnecessarily tedious. It is, however, during these systematic steps we gradually approach the study aim, getting more and more specific about what we want to explore, thereby enhancing the power of the empirical data.

Discussion

STC pretends neither to be unique nor original as a method. It is a strategy developed from traditions shared by most of the methods for analysis of qualitative data, yet developed to offer the novice researcher a process of intersubjectivity, reflexivity, and feasibility while maintaining a responsible level of methodological quality [5]. I have presented the principles and procedures of STC, emphasizing similarities and differences compared with Giorgi’s psychological phenomenological analysis [6–7]. Below, I discuss strengths and limitations of STC, related to other methods for qualitative analysis.

Thematic analysis

STC differs most prominently from longitudinal analysis methods focusing temporality (such as narrative analysis [17]) or linguistic and social interaction (such as discourse analysis [18]). While these methods provide detailed interpretation of selected dynamic aspects of a phenomenon, STC aims for thematic analysis of meaning and content of data across cases. Although details of procedures vary, related cross-case analytic perspectives are obtained by, for example GT [13], interpretative phenomenological analysis (IPA) [19], and qualitative content analysis (QCA) [20]. Some of these conduct cross-case synthesis after a longitudinal synthesis of each case, intended to first reduce data on an individual level. All these analysis methods (also STC), can be compared with quantitative cross-sectional designs, in the sense of holding limited capacity to explore processes over time. By calling specifically for experiences from different historical locations, this objection can somehow be compensated. The term “content analysis”, frequently applied synonymously with “thematic analysis” [21], should be avoided, since this concept also denotes quantification of qualitative data – which is actually very different from of an inductive and cross-case synthesis of text and meaning.

Theoretical methodological framework

Most qualitative methods, including STC, share the underlying theoretical foundations of social constructionism, where knowledge is the situated and temporary outcome of dynamic interpretations of several possible versions of reality [14,22]. Even GT, claimed to be a research strategy refraining from any predetermined theoretical framework [13], is associated with symbolic interactionism [23], considering human interaction as mediated by symbols, signification, interpretation, and by ascertaining the meaning of one another’s actions. Phenomenological philosophy is not as explicitly stated in STC as in Giorgi’s method or IPA [19]. Yet, STC shares the foundations of life-world experiences as valid knowledge, with description aiming for essences, and selective bracketing of the researcher’s preconceptions [6–7].

I regard STC more as a procedure than as a theoretically dedicated method. However, theoretical analysis will always add important surplus value to descriptive, empirical findings. A broad range of theories can be applied to support STC analysis, depending on the research question. Although the phenomenological inspiration is obvious, I will not claim STC to be a phenomenological method. Nevertheless, a committed phenomenological analysis can also be conducted with the STC procedures as a scaffold.

Analysis procedures

Most qualitative analysis methods imply decontextualization, coding, synthesis, and recontextualization, although procedures are very differently described. Basic similarities are probably more prominent than the divergences, although originators and advocates may claim more or less meticulous procedures to be followed. Prescriptive details for analysis add to intersubjectivity, but also to instrumental rigor on the expense of creative flexibility. Some authors, such as Giorgi, have succeeded in presenting concrete details and their impact by means of an auspicious example [6]. Giorgi’s method, however, does not include coding, but eidetic reduction by transformation of meaning units by imaginative variation.

For GT, Glaser and Strauss developed a stepwise analysis, including open, axial, and selective coding [13]. Open coding splits the empirical data into meaning units that are coded and gradually
assembled, axial coding organizes relationships among preliminary categories supported by constant comparison between categories and additional data, and finally selective coding aims for a consistent story and a core category from which a substantive theory can be developed [24].

IPA claims an ideographic vision, emphasizing the particular case [19]. The aim is to gain insights into how a given person, in a given context, makes sense of a given phenomenon [25]. Procedures are exemplified comparable to Giorgi’s presentation [6]. Yet, IPA is not confined to a single case study [26], since the synthesis of each case is then compared and condensed with the other cases [19]. Compared with STC and QCA [20], IPA first makes a longitudinal review as the point of departure for cross-case analysis from a small sample size, preferably up to about ten participants [19]. Limited sample size is beneficial also in STC, because the persisting overview established during the first step of analysis is necessary to maintain elements of validity related to context and coherence during the subsequent steps.

Specific for STC is the procedure presented for condensation in the third step of analysis, with text from all meaning units within a subgroup incorporated in the condensate [5]. Giorgi’s phenomenological method aims to capture every nuance by essentializing the variations first and then going back to the variations guided by their essence. Giorgi [6] and Smith et al. [19] present examples from this stage. Yet concrete descriptions of the conduct of condensation are missing for most qualitative analysis methods. The condensation process of STC safeguards a systematic review of sorted meaning units and prevents the researcher to favour meaning units supporting preconceptions.

Procedures for analysis also differ regarding the matter of splitting versus lumping. While the open coding of GT encourages a very broad range of code groups that are later lumped [13], STC initiates analysis with a limited amount of preliminary themes that are later elaborated into code groups and split into subgroups.

**Taxonomy**

Terms are not applied consistently across qualitative analysis methods. “Coding” and “meaning units” will usually denote comparable procedures and entities, while other concepts are used differently by different authors to represent patterns with different levels of elaboration. STC applies a common-sense understanding starting with preliminary themes in Step 1, proceeding to code groups in Step 2 split into subgroups in Step 3, with categories referring to the main outcome of analysis in Step 4 as reflected by the elaborate subheadings of the results section. In this sense, categories are not just organizing entities, but also statements expressing the specific essence of the condensed meaning units [5]. Granheim and Lundman, on the other hand, proceeds from initial codes lumped and synthesized into subcategories, which are then condensed into more abstract categories, which finally are summarized as an overarching theme [20], comparable with the core category of GT [13]. Similar confusing terminologies can be identified across the whole field of qualitative analysis methods, leaving no single application as the authorized version.

Any qualitative study explores the content and meaning of the empirical data – hence content analysis is not a very specific term. Similar objections can be raised for claims of inductive and iterative analysis, which takes place in any qualitative study. Therefore, detailed descriptions of procedure are needed for intersubjective understanding of what happened to data during analysis.

**STC – limitations and strengths**

The similarities between STC and Giorgi’s psychological phenomenological analysis [6–7] are noticeable and clearly declared, and the main features of STC do not differ substantially from several available methods. Therefore, the strengths as well as the limitations discussed here can also be applied for most of the other qualitative analysis methods.

The cross-case line of thematic analysis of STC may imply decontextualizing data in a way where the individual context get lost. By preceding cross-case analysis with an initial longitudinal review for each individual participant, such as IPA prescribes [19], individual context may be better preserved. Yet, information is always lost during the multiple steps of reducing information as part of analysis. Summaries of the individual participants’ accounts also imply reduction, interpretation, and comparisons with the other accounts in some way or other. For STC, the potential hazards of fragmentation are counteracted by the limited numbers of participants and data, allowing an overview also for individual cases to be maintained. STC also explicitly prescribes recontextualization as a final step of analysis, where interpretations and findings are validated against the initial complete transcripts.

If conducted with stepwise data collection, recruitment, and analysis, a feasible and limited amount of data and participants are needed for responsible analysis with STC. A thoroughly elaborated study question and a thoughtful purposive sample are
important preconditions, allowing for an overview and a contextual adhesion that is not available in larger studies.

Different criteria and strategies for evaluating the scientific merits of qualitative studies have been proposed [2–3]. Across checklists, reflexivity is claimed as an overarching precondition for good research. Furthermore, a systematic approach is also necessary all through the research process, even though creativity and flexibility is aimed for in order to develop new knowledge. The procedures of STC are simple and rigid, accessible for novices, although with limited space for creative interpretations and elegant conclusions. The detailed prescriptions of principles and procedures for analysis with STC, including the condensation in Step 3, support transparency and intersubjectivity by being easily conducted and presented.

STC implies a limited level of philosophical commitment, and is thereby applicable also for researchers without comprehensive theoretical training. This is comparable with the application of statistical methods, where analysis can be conducted without extensive mathematical knowledge, as long as certain vital principles are complied with. For STC, the phenomenological perspectives require that the researcher has sufficiently identified his or her preconceptions, so that bracketing can be imposed during various steps of analysis.

Such an epistemological position also encourages a strategy where the interpretation of data-driven inductive patterns is supported by theoretical perspectives, such as presented by Miller and Crabtree as editing analysis style [9]. In STC, the role of theoretical frames of reference for analysis is not explicated, but allowed to be applied in different ways. It may therefore be objected that the presentation gives priority to procedures for management of the empirical data. I made this choice because these steps are seldom sufficiently explicated in the methods literature.

Finally, an asset of STC is that the applicability is not restricted to specific types of empirical data. It can be used for analysis of interview studies (individual semi-structured interviews [27] as well as focus groups [28]), and also for data from observational studies based on thematic analysis of naturally occurring audio-recorded talk [29].

The art of dancing

The intersubjectivity represented by the detailed procedures, as well as the feasibility of the process, constitutes the pragmatic aspects of this approach deserving a specific presentation. By explicating details on procedure, I propose a path that the novice can follow when first entering the field. Yet, some strong warnings are needed against taking the concrete steps too literally. Technical essentialism [30] can never replace creative interpretation [2]. Methodolatry, or the privileging of methodological concerns over other considerations in qualitative health research [31], leads to objectivation, instrumentalism, and studies that are boring to read [11,32].

Qualitative analysis can be compared with the art of dancing. While the advanced dancer improvises the steps and creates the dance along the route, the beginner must learn some basic steps and exercise these sufficiently rigorously in order to be able to share his or her process with others. STC is one of several available tools of the trade. When the basic craft and skills for analysis have been learnt, the researcher can proceed towards more elegant and innovative strategies.

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