

The prospects of using diaries in a research relating medical services

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Diaries have been used in several branches of social sciences for constructing pictures of respondents' (authors') reality. This method is less frequently used than other, „classic” ones, but is gaining ground recently in the field of market research as well as in topics like time allocation, consumer expenditures, travelling habits, social networks, health, diseases and behaviour in connection with them, or criminality. Diary researches are often complemented by other methods, most frequently by in-depth interviews to gain additional information about the topic and the circumstances of using the diary. The most important advantages of using diaries are that they may provide alternative to an interview, especially in cases when events are difficult to recall, or the topic is sensitive. They may also help to overcome problems associated with inaccurate or biased recall. Semi-structured diaries were used to test the usability of this method on the one hand, and to explore the most typical communication processes, feelings and thoughts in a consulting room. Results indicate that diaries are suitable to use in this field and suggest several specific features of medical services.

Keywords: medical services, doctor-patient communication, diary method

1. Introduction

The healthcare system is one of the pillars of the non-profit sector, and nowadays, even developed countries have to struggle with financing difficulties of the healthcare system – it became a worldwide problem. The system of medical services concerns all citizens and determines the whole society, where every single person is a potential consumer. In Hungary, not only the general mortality rate is high, but that of the middle-aged managers as well, and this problem concerns the economically active group to a greater extent. That is why not only the reproduction, but the maintenance of workforce is needed as well (Kincses 2000). It is important because of the fact that in developed countries, knowledge-intensive sectors become dominant, and, as Hungary lacks important natural resources, we have to appreciate our human resources.

According to the scientific literature (Molnár-Csabai 1994, Street et al. 2009), and our preliminary research results (Málovics et al. 2009) as well, communication

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style can affect the quality of interaction between the participants, or the willingness for cooperation – thus, the quality and the outcomes of medical services. Getting to know the perceived risk and the efficient communication of risk are important tools for achieving the satisfaction of the patient. The proper risk communication and the involvement of the patient into the decision process are more and more widely considered as factors which improve the quality of medical services. Therefore, it would be important and worth exploring the Hungarian features of this area.

In the process of trying to obtain information about the processes described above, we have decided to use not only focus group interviews, in-depth interviews and questionnaire, but a special type (semi-qualitative, semi-quantitative) of a less frequently used method: diaries. In this paper, the most important characteristics of this method are described, as well as how we have used it in our research on doctor patient relationship and the most important results.

2. About the diary method

Recording a diary originally is a qualitative research method, of which there are several types to be distinguished. Diaries as personal documents or journal types of accounts have been used for a long while by historians and recently by sociologists (Corti 1993) – but the diary technique in scientific research rather refers to records that are kept by a research worker's request, with the intention to "obtain, as accurately as possible, a daily or even hourly record of certain of the respondent's activities" (Oppenheim 2005).

The most popular topics of investigation where diaries are frequently used are time allocation problems (accounts of time telling much about quality of life, social and economic well-being as well as patterns of leisure and work), consumer expenditures, transport planning and health behaviour. Other topics covered using diary methods are social networks, social policy, clinical psychology, crime behaviour or alcohol consumption; and they are increasingly being used in market research (Corti 1993, Jones 2000).

The different types of diaries are illustrated in Table 1. As described, the most important difference between solicited and unsolicited diaries is that while the former is kept at the request of the researcher, the latter have a rather spontaneous nature. Their usability characteristics (from a research point of view, e.g. aspects and methods of analysis, getting answers to research questions etc.) are a result of the attributes arising from this basic difference. "Contemporary" refers to one of the most important feature of all diaries, namely that activities are recorded close in time to their happening, being able to ensure a more accurate picture about the behaviour – this is one of the advantages of using diaries.

Table 1. Types of diaries

Solicited	Unsolicited
Kept at the request of / induced by the researcher	Spontaneous nature
Most often externally structured	Can be structured or unstructured
Can be rewarded	Unrewarded
Contemporary	Contemporary

Source: Own construction on the basis of Jones 2000

In connection with the acceptance (or usability) of diaries in the scientific research domain, there is no concordance among researchers. While according to one of them, “self-completion diaries have a number of advantages over other data collections methods...” (Corti 1993), others consider it less beneficial: „since the technique is expensive, difficult to design and to place, and hard to analyse, it should only be used, when the necessary estimates cannot be obtained in another way...” (Oppenheim 2005). Naturally, both sides have significant arguments – that is why it is worthwhile reviewing the most important advantages and disadvantages of using diaries.

- Advantages of using diaries:
- They can be more informative – people are often more willing to tell things to a paper than to another person. That is how the problem of sensitive information – which can occur in case of personal interviews – can be eliminated.
- They are less constrained than a questionnaire, and more like an interview. However, with an enough number of diaries, not only qualitative, but also quantitative analysis (e.g. frequencies) may be possible.
- They are respondent-led in emphasis, feelings and expression.
- They can be beneficial to respondents as well, who often state the personal value of recording feelings and experiences in this way.
- They can be useful in checking other methods, such as interviews or questionnaires.
- As filling in the diaries (recording activities, feelings or experiences) happens close in time (certainly the same day, or even right after a happening), they are potentially less constrained in recalling; inaccurate recall, biased recall or the use of heuristics are less feasible.
- Disadvantages of diaries:

- Limitations in the number of them to be collected.
- Interesting or important problems that arise cannot be examined immediately (like with an interview).
- Accurate recordings depend from respondents' commitment to write about events as they occur.
- Much energy have to be applied to respondent preparation and getting diaries in.
- Selectivity – diaries may not include all aspects of the examined area.
- Dependency on potential respondents' willingness to participate (as more effort from them is needed, compared to e. g. a questionnaire).
- Errors can arise from inappropriate respondent conditioning, insufficient cooperation and sample selection bias.
- They require a higher level of literacy of respondents.
- The question of representativeness: how typical was the respondents' behaviour in the particular event?
- (Carlow 2002, Oppenheim 2005)

After considering all features of this method – convinced eventually by the possibility to be able to record feelings close after a consultation, avoiding as much as possible inaccurate recall, we have decided to prepare a pilot diary-module of doctor-patient communication research. Considering this special situation, we have planned to take a special form of diaries: one-occasion diaries. Therefore, we accepted the definition of Oppenheim (2005) for the diary method (“a daily record kept by the respondent at the research worker’s request to obtain, as accurately, as possible, a record of the respondent’s activities”), with one alteration: we have omitted the word “daily” that originally was a feature of the definition.

3. Research method

As mentioned above, we have planned a special type of diary: a one-occasion one, to be recorded by both patients and doctors (different ones by this two groups, naturally), right after a consultation. With this, our aim was to be able to capture thoughts and feelings of respondents close to the interaction. For this, a questionnaire would have been too restrained (it would not have been able to record feelings with the respondents own words, for example), while interviews would have been very difficult to record in a consulting or a waiting room. Therefore, we have planned a semi-structured diary, in which participants could write their thoughts down.

3.1. *The development of the one-occasion diaries*

When forming the specific diaries, we had to take both our research requirements and the general method requirements into consideration.

To be able to capture the most important features of doctor-patient communication, we have decided not to ask respondents simply about what had happened during the consultation, but to create a semi-structured diary, which leads the way of telling the experiences and feelings, but still leans on the respondents' own focuses and phrasings – to reflect what the respondent feels or thinks is of personal importance.

From a formal and functional point of view, we have taken the literature's findings and observations into account. According to Carlow (2002), diaries should be tailor-made for each speciality (for example for information, explanation and reassurance received, or feelings that something went wrong), while general instructions should include the need to fill the diary in at the requested time. Oppenheim (2005) confirms the need to pay lots of attention to definitions and written instructions (including the need for accuracy and frankness), and to make the diary format clear, providing adequate space and making it look interesting and important. Corti (1993) also suggests that the inside cover page should contain a set of instructions on how to complete the diary. Naturally, we have tried to consider all the suitable suggestions when developing the diaries. One "unit" in our investigation was a consultation.

3.2. *The structure of patient and doctor diaries*

Both types of diaries had a cover page with the title and a logo of our university. The second page contained the aim and description of the research, the assurance of anonymity and detailed instructions about how to fill the diary in – these instructions naturally were different for the two groups (besides of asking the respondents to write their experiences down as soon as possible after the consultation and telling that at each question, they are expected to answer in several sentences, using their own words and telling what is important for them).

Doctor diaries instructions included the need to touch upon:

- the style and procession of communication
- uncertainties
- whether psychic support or professional consultation was expected/given
- trust/distrust
- expectations and their fulfilment
- patient competence
- satisfaction.

Patient diaries instructions included the need to touch upon:

- fears and anxieties
- reassurance or increase in anxiety
- understanding and listening
- support
- clear explanations, communication style
- trust/distrust
- expectations and their fulfilment.

After the instruction page, two pages contained the actual questions.

Doctor diaries contained the following questions:

- data on the consultation (its length, those present, the length of the relationship with the patient)
- the runoff of the consultation
- how the consultation went (communication style, who was the initiative, whether there were questions)
- feelings during the consultation
- what was the patient's competence like (whether he/she understood what had been told)
- how decisions about the therapy were made (whether the patient wanted/could participate)
- any other issue the doctor considers important in connection with this topic.

Patient diaries contained the following questions:

- data on the consultation (its length, those present, the length of the relationship with the doctor)
- the runoff of the consultation
- feelings during the consultation
- feelings after the consultation
- decision making about the therapy (the doctor's role, the patient's involvement, satisfaction)
- whether there is anything the doctor should have done differently

- whether there is anything the patient should have done differently

3.3. *Participants and data collection*

Data collection was realized by the help of a paediatrician, who (by snowball method) managed to call several practicing paediatricians in the research – they constituted the doctor respondents, therefore, one doctor filed several diaries, after several patients. These doctors or their assistants gave the diaries to their patients after the consultations, asking them to participate in a research independent from themselves. Arisen from this specific area (paediatrics), not the actual patients (children) filled the diaries, but their parents accompanying them. One patient therefore filled only one diary.

Altogether, 56 doctor diaries and 70 patient diaries could have been collected and used. The motivations of the visits were: 4 of the patients went to the doctor for counselling with a baby, 4 of them for a control because of some kind of disease, 16 of them had to go to hospital because of the gravity of the situation or because the family doctor had not been available, but it was emergency, and most of them (43) went to the family doctor with common problems or diseases, and in 3 cases, motivation couldn't been identified because of insufficient responses. Although there are diaries, which haven't been filled completely – supposedly because the anxiety of the parent, or the lack of time -, in our opinion, valuable information can be retrieved of them too.

4. **Results**

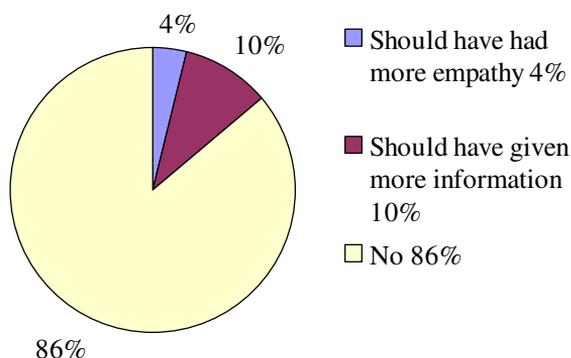
The content analysis of diaries has been realized by the researchers; in this phase of the research, no software was used for the content analysis. As a relatively high amount of diaries could have been collected, frequency analysis of data was realised as well.

As for the description of the happenings during the consultation, naturally, the answers were quite different in some ways, as there can be innumerable problems, and respondents can have diverse styles. But, the description of a process of complaints and questioning – examination – diagnosis – advices and prescriptions is apparent from both types of diaries. Taking the contexts into consideration as well, we can tell, that a paternalistic communication and decision making had been generally used in the cases we examined; and, concluded from other answers, especially from the answers to the question concerning unsatisfied expectations of patients („Is there anything the doctor should have done in a different way?”), we can tell, that most of the parents are satisfied with this style of consultation, or rather do not complaint about it (this result can be eventuated by other factors as well – for further explana-

tion, see later). This result reinforces our preliminary expectations, based on results of in-depth interviews in another module of the research.

Concerning the proportion of parents who thought the physician should have done something differently, it turned out that about 14 per cent of them were not satisfied with the performance of the doctor; and all of them had some kinds of problems with communication (Figure 1).

Figure 1. Whether there is anything the doctor should have done in a different way



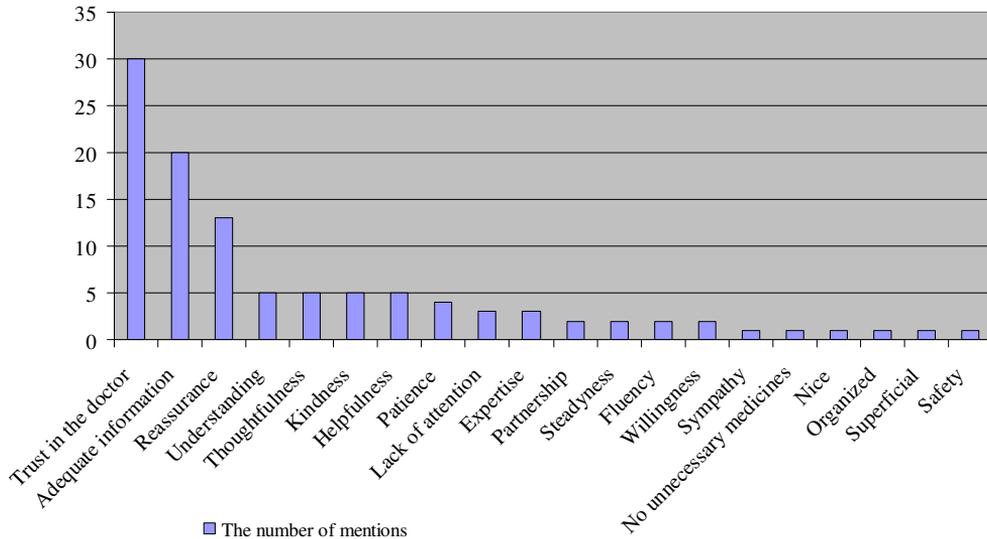
Source: Own creation

It may confirm our assumption of information asymmetry, namely that patients cannot assess the professional competence of the physicians – therefore, they do not necessarily realize if something has gone wrong –, only their communication style and manner – so, if there is some sort of complaint, it is connected to the area he/she can perceive and offer an opinion about – as one of the respondents laid down: „*I cannot criticize the decision of the doctor, as I am incompetent.*” However, even more than a half of those parents who had problems or criticism, left feeling reassured (and all the other respondents stated that too). Interestingly, most of the parents who were dissatisfied, have known and have been seeing the given doctor for years, or even more than a decade – despite the fact that (as we can conclude from their answers) they consider it as a general problem about their doctor. Still, changing doctor (supplier) does not occur. Self-criticism was a peculiarity of 7 of the patients; admitted mistakes were: not being calm enough, not taking the child to doctor in time, not asking the physician for explanation, and trusting the physician in attendance despite the inadequate examination. The results from this question indicated that diaries really had the advantage of being beneficial to respondents – several of them have realized what he/she would do differently another time.

The most common feelings and thoughts respondents had during the consultation were the feeling of trust, reassurance; and adequate disclosure of information

and answers to questions. Figure 2 and Figure 3 show more detailed results of both types of diaries.

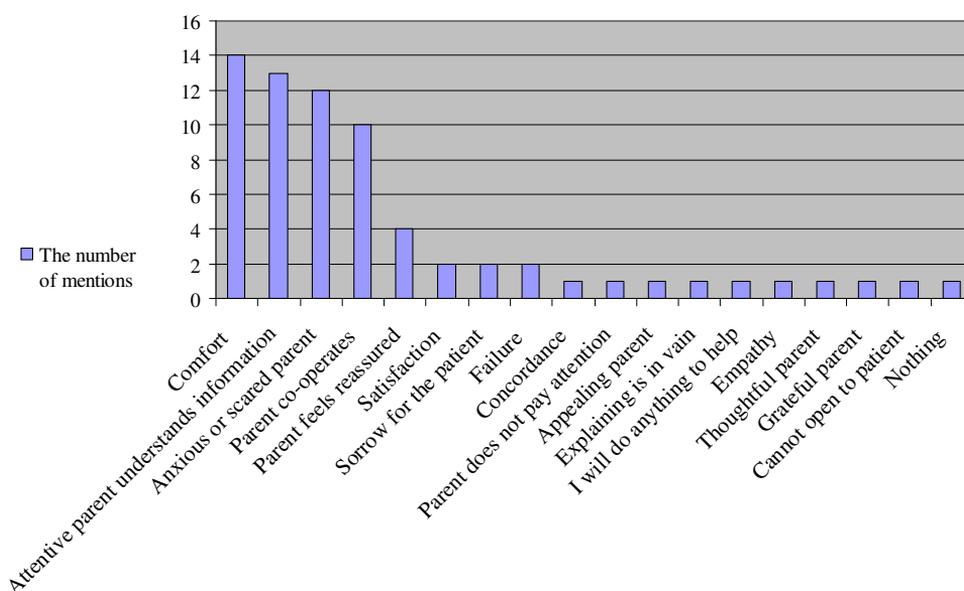
Figure 2. Feelings and thoughts of parents during the consultation



Source: Own creation

Patients place most emphasis on social – and communication – competences. If we compare the most typically mentioned feelings and thoughts of doctors and parents of patients, we can see that factors connected to the transmission of information are significant with both groups of respondents – and its positive side is emphasised: many parents think they received adequate information and feel it important enough to mention, and many physicians are satisfied with the way they can transfer information to parents.

Figure 3. Feelings and thoughts of doctors during the consultation



Source: Own creation

Nevertheless, phrasings of the doctors refer to the fact that this flow of information is rather one-way; they expect parents to be attentive and understand the information they give. *Signs of two-way communication are missing* from the parents' answers as well. Comfort felt by physicians is the most frequently mentioned feeling – this can be connected to trust, being the most frequent answer of patients: doctors may feel comfortable because they perceive trust oriented at them.

The doctors had the possibility to tell their thoughts about the topic of doctor–patient relationship and communication at the end of the diary. It was a peculiarity that many of them had something to add. The answers were quite informative, and included the suggestions as follows:

- a special consultation room would be desirable,
- staff is incomplete – more doctors are needed,
- much more time is needed for appropriate communication,
- it is substantial to communicate placidly and moderately even in case of a serious illness,
- it is important to get a feedback from to parent if he/she has totally understood the instructions, especially in case of a new medicine,
- attention, empathy and enough time is needed from the physician,

- in many cases, the measurement of whether the parent (who has scant health-related knowledge) managed to understand all the information should be more accurate
- communication trainings should be compulsory for general practitioners.

On the base of these comments of the respondents, we can state that physicians recognise and raise the most important issues about improving the quality and effectiveness of risk communication. They are aware of details that have to be revised and that education and training in communication is missing overmuch (none of the respondents have participated in any communication training). Young graduate physicians have to encounter the task of adequately informing a patient who is not an expert, and additionally emotionally affected by the situation.

5. Limitations and conclusions

Naturally, certain limitations turned out in the application of diaries in our research, especially in case of the patient diaries.. They were filled in the waiting hall of the consulting room, received by a physician or his/her assistant, and several of them given back to the assistant. Reading the answers (although anonymity naturally was emphasised) suggests that respondents could have had „fears” about their doctor – from whom they are dependent. These feelings could have affect their answers, possibly negative opinions or critics were missed out of the answers. Another problem, as diagnosed by the quality of the completion of the diaries, that using a one-event diary, as ours, carries the risk of distortion, as respondents are not suitably prepared to understand what the researchers would like to read about. Further features to improve in the future can be: exploring other areas of therapy (paediatrics is a very special one), data analysis with content analysis software.

However, despite the limitations mentioned above, we think that it is worthwhile setting an improved module of diary research up in the topic of doctor-patient communication, as this stage of research have shown that several valuable information are possible to retrieve, exploiting the advantages of diaries and thoughtfully planning the data collection procedure and analysis.

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