On the autonomy of dental patients
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Chapter 3

INFORMED CONSENT IN DUTCH DENTAL PRACTICE: KNOWLEDGE, ATTITUDES AND SELF-EFFICACY OF DENTISTS

1 Introduction

Several factors have led to an internationally growing interest in the rights of patients, of which the rapid developments in health care are among one of the most important. Because of health care's increasing potency to encroach deeply on human life, heightened awareness of the right to self-determination and an increasing need of patients to take part in medical decisions concerning their own health has been apparent (Leenen, 1995; Dupuis & de Beaufort, 1988). The fact that, internationally, increasing attention is been paid to the rights of patients, is revealed by the recent development of two texts by the Council of Europe, the 'Declaration on the Promotion of Patients' Rights' and the 'Convention on Human Rights and Biomedicine'. Both texts can be seen as a contribution to the recognition and protection of individual patient rights (Tiems, 1997). Furthermore, numerous articles on this topic, mostly of Anglo-American origin, have been published.

Unlike most states of America, only a few European countries have developed national legislation on patient rights, among which Finland and The Netherlands. In The Netherlands, legislation of some major patient rights was established in April 1995, when the Dutch government introduced the Medical Treatment Contract Act. The main objective of this act is to strengthen the position of the patient by establishing the mutual rights and duties of both patients and members of the medical profession within a treatment contract.

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One of the main principles of the Medical Treatment Contract Act is the patient's right to information. This means that the medical or dental practitioner is required to provide the patient with information relating to the nature and purpose of the treatment, the consequences and risks of treatment, and options concerning alternative treatment. Another important principle of this act is the obligation to obtain the patient’s consent to the treatment procedure. This principle is closely related to the right of the patient to information, because the patient’s consent to a treatment procedure must be an informed one. Therefore, the Anglo-American literature speaks of ‘informed consent’ (Myers, 1993; O’Connor, 1981). Other duties and rights established in this act are the duty to keep records of patients, the right of the patient to have access to his record, the right to privacy during treatment and several rights concerning specific groups of patients, such as minors and people who are not competent to participate in medical decision-making.

Although the legal profession seems to be optimistic about the implementation of this act in dental practice (Berkel, 1995; van der Horst, 1995), there is almost no research carried out to support this optimism. In fact, results from scarcely available studies indicate that health care practitioners do have problems with the implementation of this act (de Haes, de Haan, Willems-Groot, Oosterveld, Spronk, 1998; Eikman & Goedhart, 1996). They see numerous negative consequences for their practice and indicate that they lack some of the skills necessary to meet all requirements of the legislation. Research carried out before the act was introduced by the Dutch parliament, also indicated that general practitioners have reservations about disclosing certain information to their patients and about allowing them access to their record (van Warmenhoven, 1985). Above all, knowledge about the content of the act is limited, despite the attention professional publications have given to this act.

In sum, results from the preliminary and few studies mentioned above suggest that dental and health care practitioners lack sufficient knowledge of this act, have fairly negative attitudes towards its consequences and lack some of the skills necessary to implement the requirements of this act in health care practice. Social psychological theories and research suggest that knowledge, attitudes and self-efficacy (the conviction that one can successfully execute a given behavior (Bandura, 1977)) are among the most important predictors of behavior (Valente, Paredes & Poppe, 1998; van Woerkum & Kuiper, 1995; de Vries, 1993; Ajzen, 1991; de Weerd, Visser & van der Veen, 1989; Bandura, 1977) and hence, of the extent to which the requirements of the legislation can and will be implemented in practice by dentists. Therefore, the aim of this study was to assess the knowledge, attitudes and self-efficacy general dental practitioners have towards several aspects of the act, such as the duty to inform the patient, the duty to
obtain the patient's consent to the treatment and several rights and duties concerning patient records. It is assumed that the more knowledge general dental practitioners will have, the more positive their attitude and the higher their self-efficacy will be, and that self-efficacy will be determined by both knowledge and attitudes. The relationship of several background variables with these three variables will also be explored.

2 Material and methods

The material consisted of a self-constructed questionnaire, containing a scale to measure knowledge, a scale to measure attitudes and a scale to measure self-efficacy. The items were based on previous research (de Haes et al., 1998; Eijkman & Goedhart, 1996), as well as on literature about the legislation (Sluyters & Biesaart, 1995).

The scale measuring knowledge consisted of 15 true or false statements. Each statement had to be answered on a 5-point Likert scale, ranging from 1 ("is certainly not established in the Medical Treatment Contract Act") to 5 ("is certainly established in the Medical Treatment Contract Act"). It is assumed that the higher the score, the more knowledge the respondent has. Also, a general question was added which asked the respondents if they were acquainted with the act, and if so, in what way they had been informed about it.

The scale measuring attitudes consisted of 18 statements. These statements had to be answered on a 5-point Likert scale, ranging from 1 ('totally disagree') to 5 ('totally agree'). Half of the statements concerned attitudes towards possible positive consequences of the act, the other half concerned attitudes towards possible negative consequences of the act. The higher the score on the items, the more positive the attitude.

Finally, the scale measuring self-efficacy consisted of 15 statements, which had to be answered on the same scale as the attitude items. The statements concerned mainly self-efficacy towards the implementation of the principle of informed consent and self-efficacy towards informing specific groups of patients. Furthermore, several items were constructed concerning demographic variables, features of the dental practice and some other variables, such as attended postgraduate courses on dentist-patient communication.

The questionnaire was sent to 806 Dutch dentists, drawn random from the registers of the Dutch Dental Association. 335 Subjects responded (41.6%), 264 males (78.8%) and 71 females (21.2%). 75 Returned questionnaires were not filled out, mostly because respondents were no longer working as a dental practitioner. 260 Questionnaires (32.3%) were available for further analysis.
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3 Data analysis

Knowledge, attitudes and self-efficacy, as well as the demographic and dental practice variables were first processed by descriptive analysis. Frequencies of the items were calculated. Reliability analysis showed that Cronbach’s alpha for the scales measuring attitudes and self-efficacy was satisfactory, respectively alpha=.86 and alpha=.72. Reliability of the knowledge scale was low, alpha=.39; therefore, the items cannot be considered to be internally consistent enough to regard them as one scale. Hence, analysis concerning dentists’ knowledge of the act was performed on item level. Linear regression analysis and Pearson or Spearman correlation coefficients were used to study the relations between the variables. Differences in mean score were assessed using t-tests.

4 Results

4.1 Respondent characteristics

The research group consisted of 210 males (80.8%) and 50 females (19.2%) with a mean age of 42.6 year (sd=10.4). 83.8% of the respondents is a member of the Dutch Dental Association. Respondents have on average 15.4 years (sd=10.0) clinical experience as a dentist. The mean number of patients visiting the practice at least once a year is 2511. 75.2 % Of the respondents works in his or her own practice. Respondents work on average 36.8 hours a week. 55.2% Of the respondents works together with one or more colleagues, 40.8% works together with a dental hygienist, 95.2% works together with an assistant, 8.9% works together with a denturist and 40.9% works together with support personnel. Most respondents are subscribers of one or more dental journals (97.6%). A minority attended post-graduate courses on dentist-patient communication (20.7%).

4.2 Knowledge

81.2% Of the respondents indicated that they are acquainted with the Medical Treatment Contract Act. They state that they were mainly informed about this act by the Dutch Dental Association or by professional publications.

Table 1 shows the mean scores on the knowledge items. As can be seen, respondents are well-informed about the duty to ask the patient’s consent to major dental treatments and about the standard of reasonableness, which means that the amount of disclosure of information must be suited to what a reasonable patient needs to know in the given circumstances.
Knowledge, attitudes and self-efficacy of dentists

Table 1 Mean scores on the knowledge items

<table>
<thead>
<tr>
<th>Knowledge about:</th>
<th>Mean</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>duty to ask patient’s consent to major dental treatments</td>
<td>4.66</td>
<td>0.63</td>
</tr>
<tr>
<td>standard of reasonableness</td>
<td>4.43</td>
<td>0.77</td>
</tr>
<tr>
<td>patient’s right to see own dental record</td>
<td>4.42</td>
<td>0.95</td>
</tr>
<tr>
<td>duty to write down patient’s consent on patient’s request</td>
<td>4.04</td>
<td>1.00</td>
</tr>
<tr>
<td>duty to write down information about treatment on patient’s request</td>
<td>4.02</td>
<td>1.01</td>
</tr>
<tr>
<td>not being allowed to refuse access to dental records, even if the dentist</td>
<td>4.00</td>
<td>1.30</td>
</tr>
<tr>
<td>the dentist thinks the patient will not understand its content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>duty to ask patient’s as well as parents’ consent to treatment if patient is</td>
<td>3.81</td>
<td>1.17</td>
</tr>
<tr>
<td>between 12 and 16 years of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>patient’s right to add own statement to dental record</td>
<td>3.7</td>
<td>1.17</td>
</tr>
<tr>
<td>not being able to appeal to patient’s consent in legal procedures, if it was</td>
<td>3.31</td>
<td>1.18</td>
</tr>
<tr>
<td>an uninformed consent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>duty to inform patients younger than 12 year about treatment</td>
<td>3.29</td>
<td>1.21</td>
</tr>
<tr>
<td>right of patients between 16 and 18 year to undergo treatment without parents’</td>
<td>3.10</td>
<td>1.31</td>
</tr>
<tr>
<td>consent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>patient’s power of annulment of own dental record</td>
<td>3.08</td>
<td>1.45</td>
</tr>
<tr>
<td>not having to keep patient records for at least 15 years</td>
<td>2.98</td>
<td>1.60</td>
</tr>
<tr>
<td>not having to ask patient’s explicit consent to every treatment</td>
<td>2.95</td>
<td>1.39</td>
</tr>
<tr>
<td>patient’s right not to be informed about the treatment</td>
<td>2.82</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Other aspects of the act that are relatively well known are the patient’s right to see his own dental record, and the duty to write down information about the treatment or the patient’s consent to the treatment. Not all aspects of the act are well known though. For example, the right of the patient not to be informed about the treatment is least known by the respondents. Also, respondents often erroneously think that explicit consent is needed for every dental treatment. This is not the case, however, since for routine treatments consent may be assumed. Finally, the minimal period of retaining patient records, which is in fact ten years and not 15, is relatively less known too.

Figure 1 shows the number of questions respondents answered correctly. In order to simplify the results, the original 5-point scale was regrouped into a 2-point scale, by pulling together the response categories probably and definitely.
established (correct answer) on the one hand and pulling together the response categories probably not, definitely not established and do not know on the other hand (incorrect answer). As can be seen from figure 1, none of the respondents answered 16 or 17 items correctly. Furthermore, 3.1% of the respondents answered even none of the items accurately. However, almost two third of the respondents answered ten or more questions correctly.

Figure 1: Distribution of answers on the knowledge scale

Background variables associated with knowledge are working together with colleagues instead of working alone and attending post-graduate courses on dentist-patient communication. Respondents who work together with colleagues are better informed about the duty to ask the patient’s consent to major dental treatments ($p=.009$) and about the fact that one is not allowed to refuse patients access to their own dental records ($p=.003$), than dentists who work alone. Attending post-graduate courses was positively associated with more knowledge about the duty to write down the patient’s consent on request ($p=.004$), with more knowledge about the standard of reasonableness ($p=.003$), with more knowledge about the patient’s right to add a statement to his own dental record ($p=.038$) and finally, with more knowledge about the fact that the patient’s explicit consent is not needed for every dental treatment ($p=.026$).
4.3 **Attitudes**

The mean item score on the attitude scale is 2.97 (sd=.56), which corresponds virtually with the middle of the possible scale values. Also, there are roughly as many respondents with a positive as with a negative attitude towards the Medical Treatment Contract Act.

Most items concerning possible negative consequences of the act have relatively low mean scores (below mean item score), and a moderate through high frequency of respondents agreeing or totally agreeing with it. For example, 71.8% of the respondents (totally) agree with the statement that because of the informed consent principle, dentists will safeguard themselves more likely against legal procedures than they used to do. Also, over half of the respondents (totally) agree with the statement that this principle leads to a commercialization of the dentist-patient relationship and with the statement that it takes too much time to inform patients properly.

The items concerning possible positive consequences of the act on the other hand, have relatively higher mean scores (above mean item score) and a moderate through high frequency of respondents endorsing them. For instance, more than half of the respondents (61.8%) believe that the principle of informed consent will bring about a higher involvement of patients with the treatment and approximately the same percentage thinks that the duty to keep patient records will help in structuring patient data. Also, about half of the respondents (totally) agree with the statement that the principle of informed consent enhances the quality of care.

Background variables associated with a more positive attitude are working together with colleagues instead of working alone (p=.000), being employed instead of being self-employed (p=.04), female gender (p=.005) and working less hours a week (p=.038).

4.4 **Self-efficacy**

The mean item score on the self-efficacy scale is 3.06 (sd=.43), which corresponds virtually with the middle of the possible scale values. Also, there are roughly as many respondents with a positive as with a negative perceived self-efficacy towards the Medical Treatment Contract Act. Most respondents do not find it difficult to inform specific groups of patients, such as children and lower educated people. However, 82.8% of the respondents (totally) agree with the statement that it is difficult to inform immigrant patients. A considerable percentage of the respondents (68%) also indicate having trouble finding out what patients must be informed about according to the act. Furthermore, about half of the respondents agree with having trouble assessing the amount of comprehension the patient has of the given information.
Most respondents (67.3%) indicate having no trouble keeping up with new developments in dentistry, and find themselves sufficiently trained in social skills to answer the questions of patients (59.7%). Also, a majority (59.8%) indicates having no trouble judging which information in which situation is appropriate.

The only background variable associated with higher self-efficacy is working together with colleagues. Respondents who work together with colleagues have a significantly higher self-efficacy than respondents who work alone (p=.004).

4.5 Knowledge, attitudes and self-efficacy

The correlation coefficients between the knowledge items on the one hand, and the attitude and self-efficacy on the other hand are low (range Spearman’s rho=-.20 through .18). A moderate, but significant correlation exists between attitude and self-efficacy (r=.31, p<.01). To determine how the combination of background variables, knowledge and attitude can predict self-efficacy, stepwise regression analysis was performed. The knowledge items were added as dummy variables, by using the 2-point scale described earlier. Table 2 shows the results of the regression analysis. Two variables explain 12% of the variance of the self-efficacy: the attitude and knowledge about the standard of reasonableness.

Table 2  Results of regression analysis with self-efficacy as criterion

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attitude</td>
<td>.09</td>
<td>.30</td>
<td>4.3</td>
<td>.000</td>
</tr>
<tr>
<td>• Knowledge about standard of reasonableness</td>
<td>.12</td>
<td>.18</td>
<td>2.5</td>
<td>.014</td>
</tr>
</tbody>
</table>

5 Discussion

Only 41.6% of the respondents returned the questionnaire. There are several possible explanations for this low response rate, such as the length of the questionnaire or lack of interest in the topic. It is also possible that dentists did not respond because of a general aversion towards legislation. Research shows that dentists do feel pressured by governmental interference and that this is an important stressor in dental practice (Gorter, Albrecht, Hoogstraten & Eijkman, 1999). Because of this low response rate the results may be biased. The most probable bias is that interested dentists responded more than dentists not interested in this topic. If this is the case, knowledge, attitudes and self-efficacy measured in this study will probably be higher and more positive than in the general population of dentists.
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5.1 Knowledge

The results show that Dutch dentists are reasonably knowledgeable of the content of the Medical Treatment Contract Act. However, none of the respondents answered 16 or 17 items of the questionnaire correct. Furthermore, significant differences in mean scores exist between the single items, thus, some rights of patients are better known than others. The most important aspects of this act for dental practice, however, such as the duty to obtain the patient's consent to a major dental treatment procedure, are relatively well-known. It seems that knowledge is lower on several items, which seem to bear relatively little relevance for the dental practice, such as the right of the patient not to be informed about the dental treatment. Nevertheless, knowledge on some aspects of this act is still, four years after its introduction, limited, and further effort is needed to improve dentists' awareness of those topics. The fact that attending post-graduate courses on dentist-patient communication is positively associated with more knowledge, points to the possibilities of further educating dentists on this topic.

5.2 Attitudes

Dentists' attitudes towards the Medical Treatment Contract Act are neither very positive nor negative. In general, most possible negative consequences of the act are endorsed by a majority of the dentists. For instance, a majority of the respondents does believe that the principle of informed consent will lead to a commercialization of the relationship between dentist and patient. Also, fear for legal procedures seems to be present (this result, however, is in contrast with the results of a Dutch study (Eijkman, Assink & Hofman-Okkes, 1997), which shows that dentists have hardly any concern over legal procedures). In addition, almost half of the respondents share the opinion that it is wrongly assumed that the patient wishes to participate in the decision process. It is possible that this opinion is not very far from the truth. Research shows that patients have less need for participating in the medical decision process, than is often assumed by practitioners. Their need for information, however, is often underestimated (Sutherland, Llewellyn-Thomas, Lockwood, Tritcher & Till, 1989; Strull, Lo & Charles, 1984). Apparently, other motives than the need for participating in the decision process underlie the need for information.

Almost half of the respondents feel that the ratio between dental and administrative activities is getting more distorted than already is the case. The same opinion exists for the duty to inform patients. According to the respondents, it takes too much time to inform patients properly. The fact that dental practitioners in The Netherlands are paid per dental treatment when treating adult patients and do not have a fixed salary unlike most other health care...
practitioners, may have to do with these findings. In general, they are paid for what they actually do in the mouth and not for what they say. It can be presupposed, however, that elaborate information in earlier phases of the consultation between dentist and patient, saves time in later phases, because in this way miscommunication can be prevented and hence, dentists are able to work more efficiently (Eijkman, Duyx & Visser, 1998; Gorter & Eijkman, 1997). Besides that, several studies indicate that there is no univocal relationship between length and quality of the consultation as perceived by the patient (Hofman-Okkes, 1991). It is reassuring though, that respondents also endorse most positive consequences of the act, such as the increase of the involvement of the patient with the treatment, and the improvement of the quality of care.

5.3 Self-efficacy

A lot of respondents have difficulty finding out what the patient must be informed about according to the Medical Treatment Contract Act. Therefore, it is remarkable that a majority of the respondents also indicate that they have no trouble judging which information in which situation is appropriate. Apparently, most respondents believe the information they give is generally correct, but they are not sure whether it corresponds with the requirements of the act. More problematic is the fact that almost half of them has trouble assessing the amount of comprehension the patient has of the given information. Also, only one third is able to judge the extent of the patient’s need for information. This result corresponds with other research, suggesting there is a general tendency to underestimate the need for information (Sutherland et al., 1989; van Zuuren & de Boer, 1988).

It is reassuring that most respondents indicate having no trouble keeping up with new developments in dentistry, and find themselves sufficiently trained in social skills to answer the questions of patients. Results from other research, however, suggest that dentists do have problems with keeping up with new developments in dentistry and have deficiencies in knowledge about several aspects of the dental treatment (Eijkman, Duyx & Visser, 1998; Lewis & Main, 1996; Dove & Cottone, 1990; Hamilton, Sarll, Grant, Worthington, 1990; Romberg, Cohen & LaBelle, 1989; Eijkman & de With, 1980). Therefore, the question remains whether dentists really have no trouble keeping up with new developments or that, to some extent, they answered socially desirable.

Respondents were also asked how difficult it is for them to inform three different groups of patients. They find it most difficult to inform immigrant patients. Different opinions about dental treatment because of cultural differences and particularly language problems probably underlie this problem. Informing
patients with little education and informing children causes most respondents no trouble.

6 Practice implications

The results show that a positive attitude and a high self-efficacy on the one hand are hardly related to knowledge about several aspects of the act on the other hand. This suggests that improvement of the implementation of this act in dental practice will not result from an improvement in knowledge alone. Furthermore, knowledge about some of the most important aspects of the law seems to be sufficient.

The attitude and self-efficacy of the respondents were moderately correlated. Contrary to expectations, however, self-efficacy was only slightly explained by attitude, knowledge and the various background variables. This result clearly implies that the implementation of the requirements of the act demands both a change in attitude and an improvement of the (communicative) skills of dentists, for an improvement of the attitude will only have a small effect on the self-efficacy of dentists. This conclusion corresponds with the results from previous literature research on this topic (de Regt, de Haan & de Haes, 1997). Attention must be given to the attitude of the dental profession towards this legislation. Misconceptions must be cleared, and skills improved. The idea that an elaborate and informative consultation takes too much time needs to be discussed, and fear for legal procedures must be taken seriously. Also, dentists need education about informing immigrant patients and about informing their patients in such a way they will understand the information. Only when the attitude and skills of dentists are improved, the Medical Treatment Contract Act can be implemented optimally in dental practice.
References


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