

Client satisfaction with substance abuse treatment. Baseline results from the IQMS study conducted in seven counselling centres

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Summary

Objectives: Our study was carried out to evaluate client satisfaction with substance abuse treatment before introducing a quality management (QM) program.

Methods: Between October and November 2004 a complete sample of 247 substance abusers completed a self-administered questionnaire in seven counselling centres in Baden-Württemberg (Germany). Routine data from the counselling centres were also included. Analyses were conducted by using chi²-tests, logistic regression models adjusted for covariates and t-tests for paired samples.

Results: Our results suggested a high client satisfaction with counselling and highly rated positive effects of counselling. The satisfaction with the treatment in hospitals for substance abuse was significantly lower. Patients felt that there was lack of appropriate information in hospitals. There seems to be room for improvement particularly in the cooperation between General Practitioners and counselling centres as well as between hospitals for substance abuse and aftercare institutions.

Conclusions: To increase the quality of care for addicts particularly the exchange of information and the transfer of patients between different institutions involved in care should be improved.

Keywords: Substance abuse – Integrated quality management – Client satisfaction.

Substance dependence is a major medical, social and economic problem in Germany. Germany is one of the leading

nations concerning the annual per capita consumption of alcohol [1]. About 25 % of total mortality in men and 13 % in women between 35 and 65 years is a consequence of alcohol abuse [2]. The social costs attributable to alcohol (disregarding criminality) are estimated to be 20.5 billion per year [3]. In addition to alcohol illegal drugs play an important role. According to a representative study in Germany, 21.8 % of the total population between 18 and 59 years have consumed illegal drugs at least once in their life [4]. It is estimated that Germany has between 1 and 1.4 million abusers of medication [5]. According to the official German addiction statistics in 2004 24 5601 male and female substance abusers were treated in outpatient facilities and 29 081 received inpatient treatment [6]. 55 % of the outpatient treatment and 81 % of the inpatient treatment were due to alcohol abuse thus being the number one in substance abuse in Germany. Illegal drugs follow with about 28 % in outpatient treatment and with about 14 % in inpatient treatment [6].

However, drug rehabilitation is a complex, long lasting, and highly individual process that often requires a whole series of therapeutic or medical treatment frequently intermitted due to relapses.

Several institutions are involved in this process in Germany:

- primary care settings (General Practitioners and acute care hospitals),
- counselling centres,
- inpatient care institutions for detoxification,
- (inpatient or outpatient) facilities for withdrawal,
- aftercare units and
- supporting groups who can complement and extend the effects of professional addiction treatment [5].

The function of every subsystem in substance abuse treatment as well as the interaction of these subsystems affect the success of the rehabilitation. Therefore a high need of coordination and cooperation between these facilities is beyond question [7]. There is an increasing concern regarding the effectiveness of the treatment available. This concern includes problems of cooperation and the time schedule of the process. Client satisfaction and the quality of therapy are assessed within many inpatient institutions for addiction treatment, and in some institutions providing outpatient care. Yet a lack of knowledge persists concerning the cooperation between the different institutions e.g. clinics, counselling centres, physicians [8]. Accordingly, case management focussing on a continuous treatment is not a common practice in addiction rehabilitation. Considering all the subsystems and facilities involved in substance abuse treatment continuous care seems to be hard to realize. One step towards case management in addiction treatment could consist in defining counselling centres as pivot coordinating all necessary action.

Our study was conducted to document clients' satisfaction with abuse treatment before introducing a quality management (QM) program (for detailed information on the QM program see the Method Section) with a particular focus on the interaction between counselling centres, hospitals, and General Practitioners.

Materials and methods

Data collection

Data were derived from the research accompanying the QM program "Integrated quality management addiction" to be established in seven counselling centres for substance abuse clients in Baden-Württemberg, South-Germany. All centres are run by the deaconry. Precondition for the counselling centres to be included in our study was the willingness to participate in the QM program. Clients in these centres were asked to fill out a standardized questionnaire (for details see below) in the counselling centres measuring their satisfaction with the counselling and the treatment. In addition, data consecutively collected by the counselling centres (for details see below) were used. Participation in the study was voluntarily and anonymous.

Quality management program

The QM program, conforming to ISO 9001:2000, intends to improve the process and the outcome of rehabilitation of addicts by implementing standards for treatment and communication in the counselling centres. As a consequence both the care within the counselling centres and the cooperation

between the facilities of rehabilitation and acute care (General Practitioners, hospitals) are expected to be improved. For example, the QM program aims to

- optimize the working conditions in the centres, (e.g. infrastructure, internal communication, documentation and qualification of employees),
- improve the cooperation between institutions by setting standards for planning inpatient, outpatient rehabilitation, aftercare etc.,
- strengthen the work of supporting groups by providing training for group leaders.

The QM program consists of two elements. First, the heads of the counselling centres will be trained in 8 full day courses. Elements of this training are improvement of the process and outcome quality within the counselling centres and improvement of the cooperation quality with other facilities.

These elements are documented in a handbook. The compliance with the requirements of the QM will be consecutively documented. The success of the training and the implementation of the quality management within the counselling centres will be tested with the help of internal and external audits. Second, a new electronically assisted case management will be developed and implemented based on the elements of the QM program as documented in the handbook.

Study population

From a complete survey of all substance abusers we recruited those who (apart from one counselling centre) finished the counselling program regularly between October and November 2004. This was done to assure that all participants had gone through the whole counselling process. We distinguished between clients who had finished the rehabilitation regularly and clients who had abandoned the process prematurely without accordance of the counsellor.

In one counselling centre in Heidelberg frequented mainly by consumers of illegal drugs, all clients who contacted the centre were asked to complete a questionnaire - irrespective of whether they completed the program or not. Illegal drug users usually do not keep regular contact to their counselling centres. Therefore it cannot clearly be defined when the counselling program is finished in this group. Furthermore, since the counselling centre in Heidelberg provides a large part of the total sample we preferred to keep it in the statistical analysis. Some clients could not be involved in our final data set due to questionnaires not being returned (approx. 8–12), wrong or missing IDs (n = 10), not unique IDs (n = 6). Nine questionnaires were excluded from the final data set since they had been completed by the relatives of the addicts.

The study protocol was approved by the local ethic committee

and informed consent was obtained from every study participant.

Characteristics of the study population are presented in Table 1. Of the 247 participants more than 75% were men, 32% were between 30 and 39 years old. Most of the clients were addicted to legal drugs. The findings show a low occupational status of the addicts examined: Half of them did not work (this fraction included retired persons, house wives/husbands, unemployed persons as well as individuals on social welfare), 14% were semi- or unskilled manuals and 13% skilled manuals. 49% of the sample had a household income lower than 900€. 44% of the clients had more than 12 contacts with their counsellors. There was a high rate of missing values for the number of contacts (n = 150). This is due to the fact that the information derived from the counselling centres (see below) is usually completed at the end of the year if the clients stay in the counselling process or immediately following termination of the counselling process.

Instruments

The baseline data collection included two elements:

1. a self-administered questionnaire, which the clients completed on counsellor's request and
2. routine data from the centres.

Clients were excluded if either one source of information was not available or both sources could not be linked due to incorrect identification (for the number of drop outs and non-responders see above).

A modified version of the KPF (Cologne Patient Questionnaire) was used to assess the treatment of addicts. The KPF is a tested and valid instrument for surveying patients [9]. This instrument is described in detail elsewhere [10].

Some questions were slightly modified to adapt the questionnaire to the rehabilitation of substance abusers. Clients were asked to judge different aspects of addiction treatment: Questions regarding the clients' satisfaction with General Practitioners, the counselling service centre and the hospital were asked (if clients had been admitted to hospital due to their substance abuse). An example is 'The counsellor informed me comprehensively about potential benefits of a therapy'. The answers were coded as 1 = completely disagree, 2 = rather disagree, 3 = rather agree, 4 = completely agree. To summarize the given information, we created mean scores of items belonging to the same dimension (number of items on the scale is given in parenthesis), i. e. satisfaction with the first contact with the counselling centre (7), satisfaction with the relation to the counsellor (5), satisfaction with information provided by the counsellor (5), satisfaction with the information provided by the General Practitioner concerning counselling centres (7),

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satisfaction with the information on aftercare provided by the hospitals (4), overall success of counselling (3). The overall satisfaction with counselling and with inpatient therapy was measured on a scale ranging from 1 = very good to 6 = unsatisfactory. An example for this type of question is 'How would you assess the satisfaction with your counselling centre?'. In addition, we asked one question concerning self-rated health ranging from 1 = excellent to 5 = poor.

Table 1 Characteristics of the study population

	N	%
Total study population	247	100
Sex		
male	188	76.7
female	57	23.3
missing values	2	–
Age (years)		
< = 29	57	23.4
30–39	77	31.6
40–49	57	23.4
> = 50	53	21.7
missing values	3	–
Addiction to		
legal drugs	147	62.3
illegal drugs	86	36.4
pathological gambling	3	1.3
missing values	11	–
Occupation		
not employed	116	52.0
professionals	8	3.6
intermediate positions	11	4.9
non-manuals	14	6.3
skilled manuals	28	12.6
Unskilled/semi-skilled manuals	31	13.9
selfemployed/free lancer	8	3.6
Others	7	3.1
missing values	24	–
Household income		
under 900 Euro	113	48.7
900 Euro–1 499 Euro	56	24.1
1 500 Euro –2 499 Euro	38	16.4
2 500 Euro and more	25	10.8
missing values	15	–
Termination of counselling		
regularly, prematurely in accordance with counsellor	64	28.1
abandoned counselling	10	4.4
not terminated yet	154	67.5
missing values	19	–
Number of contacts		
up to 12 contacts	54	55.7
More than 12 contacts	43	44.3
missing values	150	–

EBIS (Counselling related Information System) is a computerized information and documentation system applied by the counselling centres for substance abusers. By means of EBIS, socio-demographic data (e.g. age, sex and the client's education, occupation and living situation) can be documented. Moreover, EBIS offers the possibility to enter information related to the counselling process, e.g. the number of contacts between the counsellor and the client, the reason of termination, the duration of treatment and whether the problem had been alleviated as a consequence of treatment.

Statistical analysis

Descriptive statistics and χ^2 -tests (Pearson χ^2 or Fisher's exact-test if expected values were less than five) were used. To measure the effects of several factors on client satisfaction, multiple logistic analyses with stepwise backward selection were performed. Due to the skewed distribution of the scores measuring satisfaction we dichotomized all respective information comparing the category 'satisfied' with the remaining categories. We started with saturated models, including age, sex, and counselling centre (Heidelberg compared to the remaining centres) as covariates. Model-fit was tested with the help of the Likelihood-ratio-difference test [11]. Given the small numbers of variables we derived directly from the counselling centres (e.g. judgement of the problem by the counsellor) we accepted a significance ≤ 0.10 . Different subsystems involved in substance abuse treatment (counselling, hospitalisation and General Practitioners) were compared regarding client satisfaction using t-test for paired samples. All statistical analyses were performed with SPSS 12.0.

Results

In total the information of 247 clients could be analysed, as both, EBIS-Information and a questionnaire was available. Data show high satisfaction with the care for addicts provided by the counselling centres. Respondents were highly satisfied with the first contact and the relation to the counsellors (including items like the counsellors' friendliness and competence). The mean value of the sum score 'first contact with the counselling centre' was 3.79 (SD = 0.3) and 3.8 for 'relation to the counsellor' (SD = 0.3) with a value of 4 indicating satisfaction. When the clients were requested to give an overall rating of the service, the centres were rated as good to very good (mean value 1.5, SD = 0.7).

With the help of multivariate logistic regression analysis we tried to identify factors which were significantly associated with the clients' overall satisfaction (see Tab. 2). After adjustment for age, gender, and counselling centre (Heidelberg

compared to the remaining centres) reported health and marital status were significantly associated with clients' overall satisfaction with counselling. Clients reporting a very good or excellent health and married clients were more likely to be satisfied. Other factors were not associated with the overall satisfaction. Table 3 displays factors associated with the overall success of counselling. Clients with a high number of contacts with the counsellor and clients reporting very good health were more likely to assess the counselling process as being successful. In addition, the judgement by the counsellor whether the client's problem has been solved was associated with the success of counselling reported by the clients.

Regarding other sections of the care system for drug abusers it was shown that the clients' judgement of the inpatient care in hospital for drug abuse (detoxification and withdrawal) was not as positive as the assessment of the counselling.

The mean value of the sum score 'first contact with the hospital' (Mean = 3.43, SD = 0.6) was significantly lower than the score 'first contact with the counselling centre', (Mean = 3.78, SD = 0.3, $p < 0.001$) with a value of 4 indicating satisfaction.

Table 2 Factors associated with clients' overall satisfaction with counselling^a

	N	OR	95% CI	p value
Reported health^b				
excellent, very good	63	2.59	1.38, 4.88	0.003
good, less good, poor	180	1.00		
Marital status^b				
married	74	1.73	0.94, 3.20	0.08
not married	168	1.00		

a: 1 = very good vs 5–6 = good to unsatisfactory

b: adjusted for age, sex, counselling centre

Table 3 Factors associated with self reported overall success of counselling^a

	N	OR	95% CI	p value
Number of contacts^b				
high	104	2.19	1.09, 4.38	0.027
low (ref.)	62	1.00		
Reported health^b				
excellent, very good	50	2.48	1.23, 5.00	0.01
good, less good, poor (ref.)	156	1.00		
Judgement of problem (by counsellor)^b				
no problem, problem eliminated, improved	54	7.46	0.88, 67.3	0.07
unchanged, worse (ref.)	11	1.00		

a: agree that counselling was successful, 4 = strongly agree vs. 1–3 strongly disagree to rather agree

b: adjusted for age, sex, counselling centre

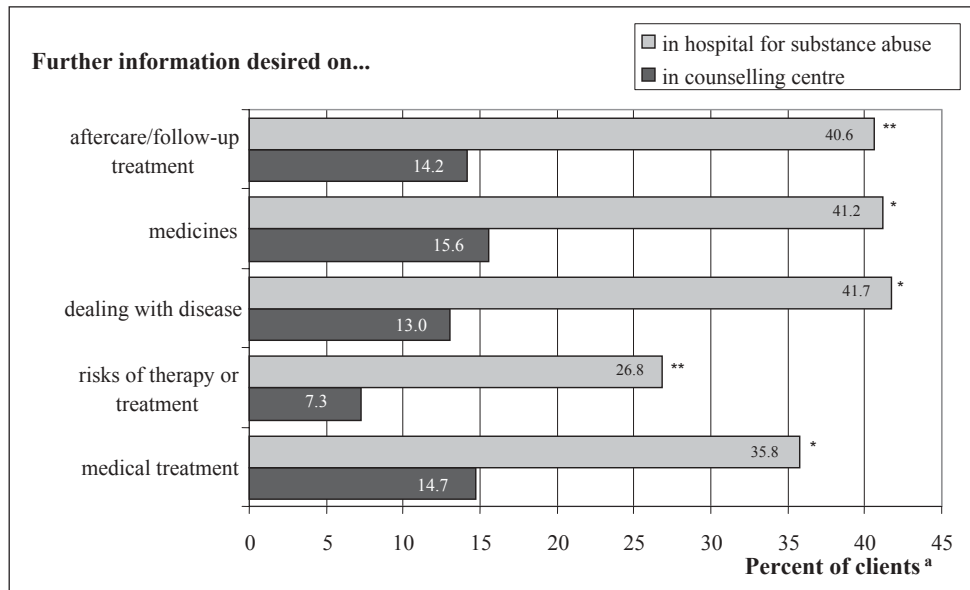


Figure 1 Further information desired in hospital and counselling centre

^a only clients who were in hospital, multiple mentions; * $p < 0.001$, ** $p < 0.01$

A high percentage of hospitalized respondents stated that too little information was provided by the hospitals for substance abuse (see Fig. 1). This refers to therapists' explanation on medical treatment as well as on information concerning possible risks of the therapy. In counselling the felt lack of information was significantly less pronounced ($p < 0.001$ and $p < 0.01$). Many more clients in hospital than in counselling desired more advice on how to deal with their disease ($p < 0.001$). 41 % of the hospitalized addicts would like to be better informed about medicines they used, compared to 15.6 % in counselling centres ($p < 0.001$). A larger proportion of respondents stated a lack of advice on treatment after hospitalisation compared to counselling ($p < 0.01$).

Less pronounced satisfaction could also be identified with regard to the interdisciplinary cooperation between General Practitioners and counselling centres (see Tab. 4). Clients who consulted counselling centres following the advice of General Practitioners judged the information on addiction treatment given by General Practitioners significantly less positive than the information provided in counselling centres ($p = 0.003$). Differences in satisfaction were also observed with regard to information about aftercare. Clients who had been in hospital for substance abuse were significantly less satisfied with the planning of aftercare as compared to information about aftercare provided by the counselling centres ($p < 0.001$) (see Tab. 5).

Discussion

Our study showed an overall high level of satisfaction with the care in counselling centres for substance abuse and also

(subjective) success was rated as high. The satisfaction with inpatient treatment was less pronounced. Accordingly, potentials for improvement of the interaction between the different systems involved in treatment were identified. Especially, the follow-up treatment was judged less positively by the clients as well as the interface between General Practitioner and counselling centre.

An integration of acute care in the rehabilitation of substance abusers is known to be important. Patients with substance abuse related disorders who receive integrated care within

Table 4 Satisfaction with information: General Practitioner vs. counsellor, percent and chi²-test ($n = 39$)^a

	Proportion	Chi ² p-value
satisfaction with information about counselling provided by General Practitioner ^b	44 %	8.76
satisfaction with information provided by counsellor ^b	69 %	0.003

a: only clients who consulted the counselling centre due to advices of General Practitioners;

b: 4 = strongly agree vs. 1–3 strongly disagree to rather agree

Table 5 Satisfaction with counselling vs. satisfaction with planning of aftercare by the hospital, Mean value and Standard deviation ($n = 99$)^a

	Mean	Standard deviation
satisfaction with planning of aftercare by hospital	2.44	1.196
satisfaction with counselling	1.48	0.645

a: only clients who had been in hospital; 1 = very good; 6 = unsatisfactory; $t = 7.660$, $p < 0.001$

the substance abuse program benefit from this approach [12]. Previous surveys indicated that about 70–80% of alcoholics consulted a General Practitioner at least once a year [13]. Physicians can therefore be of powerful influence for getting the patient to accept treatment but they are often not trained to diagnose or to care for addiction. Accordingly, substance abusers are frequently not treated sufficiently in acute care facilities [14–16] and the chance of an early therapy is often lost. To maintain the results achieved in in- or outpatient rehabilitation an increasing emphasis should be placed on providing a continuum of care in addiction treatment. Book IX of the Social Security Code imposes an obligation on professionals in rehabilitation (General Practitioners, pedagogues, social workers, psychologists) to cooperate [17]. Especially, the move from rehabilitation to aftercare is one of the key points in this cooperation process [18]. The particular role of aftercare is supported by findings which reveal that aftercare is associated with better post-treatment outcomes. Albeit not all studies show positive effects and the findings do not show a long-term success of treatment. Furthermore, aftercare remains understudied [18, 19].

How can our findings be interpreted in the light of studies using the same questionnaire?

One study using the Cologne Patient Questionnaire in general hospitals [10] found similar judgements concerning the reported overall success of hospitalisation compared to our study. However, the relationship to the nursing staff was rated much more negatively than the relation to the counsellor in the study presented here. Furthermore, the addicts surveyed were more satisfied with the information provided - even in hospitals - than patients of general hospitals. One might argue that these positive results are due to the fact that we tried to include finishers only. Finishers can be expected to judge the treatment process rather positively given that they were successful in their rehabilitation. However, the majority of clients in our study had not finished the treatment on regular terms. Nevertheless, difficulties may occur in measuring any positive development in clients' satisfaction after the introduction of the QM program when starting from such a high level. We expect possible improvement of satisfaction to be rather moderate but not impossible. Possible improvement following the QM program will be clearly restricted to aspects of care not judged as positive as others, e.g. aftercare information provided by hospitals, differences in information about addiction treatment provided by hospital in comparison to counselling centres. However, information on findings from the baseline will be implemented in the QM program to support its focus on relevant aspects.

Furthermore, the adequacy of the measurement of self-rated satisfaction in addiction treatment has to be discussed. Patient

satisfaction as an instrument to measure quality is not unquestioned, both methodically and theoretically (e.g. [20–22]), as there is only a poor association between patient satisfaction and success of treatment. Druss, Rosenheck, Stolar (1999) [23] reported an association between satisfaction with inpatient care and increased likelihood of outpatient follow-up in addicts, promptness of follow-up, and continuity of outpatient care. Yet these relationships became attenuated when referring on hospitals and not on individuals.

Another limitation is that the distribution of patient satisfaction is skewed in our study which possibly indicates a ceiling effect. To verify the assessment of quality by measuring client satisfaction, we plan to include data on the addicts' reintegration in occupational life after having terminated rehabilitation. This would provide more objective information on the outcome of rehabilitation.

Besides, the following limitations of the study need to be discussed: Non-responders who refused to complete a questionnaire probably caused an overestimation of satisfaction as it can be assumed that these clients are less satisfied than participants in this study. This effect of a selection of dissatisfied patients out of the study was shown by Gillig, Grubb, Kruger, Johnson, Hillard, Tucker (1990) [20]. Errors in data collection on the other hand are not likely to bias the outcome as we can assume that these occurred randomly.

Since we decided to include all clients irrespective of whether they completed the rehabilitation program or not in Heidelberg the comparability between the centres is a matter of question. In Heidelberg, clients were younger than on average and 58.3% of them were addicted to illegal drugs. Overall satisfaction did not differ between the centres studied. However, the respondents were significantly more satisfied with the first contact (3.82 vs. 3.74, $p = 0.05$, adjusted for age) whereas the coordination between hospital and follow-up treatment is judged worse (2.49 vs. 3.39, $p < 0.001$). Therefore, the presentation of factors associated with client satisfaction in Tables 2 and 3 was adjusted for the different counselling centres (Heidelberg vs. remaining centres).

To exclude a possible selection bias, we conducted the analyses separately for those clients who completed a questionnaire without routine information provided ($n = 35$). The results showed that these data do not differ significantly from the data presented here. Accordingly, it is unlikely that bias due to sample selections has affected the associations.

Conclusion

Our study found overall a high level of client satisfaction in substance abuse care in counselling centres, even though

there are still potentials for improvement in (1) the cooperation between counselling centres and primary care, as well as in (2) the aftercare for substance abuse clients. Therefore the results provide an important basis for establishing a quality management program. They may help to focus it on aspects of integration and cooperation between the different facilities involved in addiction treatment which might contain potential for improvement. Nevertheless, as client satisfaction as indicator for quality is not unquestioned, it is essential to verify

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the results of this study by including objective data.

The second phase of the survey began in January 2006 after having established the QM program in the counselling centres.

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