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Building a European Consensus on Minimum Quality Standards for Drug Treatment, Rehabilitation and Harm Reduction

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Key Words
Quality · Standards · Treatment · Rehabilitation · Harm reduction · Europe

Abstract
Background/Aims: The Study on the Development of an EU Framework for Minimum Quality Standards and Benchmarks in Drug Demand Reduction (EQUS) has set up an inventory of quality standards and initiated a consensus-building process, aiming at establishing a set of European minimum quality standards (MQS) for treatment/rehabilitation and harm reduction in the field of drug abuse and dependence. ***Methods:*** Existing documents were collected by country-specific experts and integrated into a predefined framework of quality standards. Agreement, implementation status and expected implementation problems of the proposed standards were assessed by a survey of European stakeholders and the final lists of European MQS were established at a European conference. ***Results:*** Overall, 349 documents were identified as relevant. Major gaps were identified for ethical and legal standards, and for documents that provide grades of evidence for specific standards. A high level of acceptance was found for the treatment/rehabilitation MQS, while a somewhat lower level was found for the harm reduction MQS. The final lists of MQS were based on at least 80% of acceptance by European experts and stakeholders. ***Conclusion:*** A high consensus of European MQS for treatment/rehabilitation and harm reduction has been achieved. Further implementation and developmental steps are discussed.

Introduction

Why Quality Standards?

The Institute of Medicine, an American non-profit, non-governmental organisation founded in 1970 under the congressional charter of the American National Academy of Sciences, has defined quality of care as 'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes [the desired end results of healthcare in terms of benefits to the patient and society] and are consistent with current professional knowledge' [1]. Good quality means providing patients with appropriate services in a technically competent manner with good communication, shared decision-making, and cultural sensitivity [2].

In our understanding, the quest for treatment quality in the drug field is based on the following economic, ethical and political motivations: poor quality services are ineffective and a waste of economic resources; patients' rights necessitate effective interventions and safety standards (the principle of non-maleficence is still valid).

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However, recent research findings show that severe deficiencies in treatment quality exist despite these concerns. A study on a representative sample of substance abuse services in the USA documented low professional status and a severe lack of competence due to high staff turnover [3]. A study on the management of high-risk opioid addicts in EU member states documented a major need for improvements in all treatment centres despite significant differences between centres [4].

One way to improve the quality of service is to introduce clinical guidelines, but guidelines do not always provide reliable guidance. A review of 28 national guidelines for opioid substitution therapy documented a range of inappropriate restrictions without an evidence base, such as a minimum duration of dependence of 3 years before starting opioid substitution therapy or for example a minimum age of >25 years. The review found major incongruity among guidelines concerning settings, indication rules, dosage schemes, controls, funding and quality management [5].

Another improvement strategy is the utilisation of systematic training programmes, including best practice guidance. An ongoing example is the TREATNET project, which engaged staff from 20 resource centres in 19 countries in a comprehensive training programme and set up workgroups to produce best practice papers on specific issues [6].

Why Minimum Quality Standards?

Another approach involves the effort to define minimum quality standards that would be affordable under the conditions of financial constraint and scarcity of addiction specialists. Minimum quality standards can serve as indicators of relevant deficits in service provision and facilitate the accountability of services and staff, and these minimum standards can be instrumental for priority setting in service improvement and related research.

The WHO engaged in such efforts early on. In 1992, the WHO published standards of care in drug abuse treatment [7]. Later, WHO included methadone and buprenorphine as medications for the maintenance treatment of opiate dependence in the list of essential medicines [8] and combined evidence-based recommendations for best practice in opioid substitution treatment with a range of recommended minimum requirements related to legal, clinical, procedural and ethical issues [9].

One of the first European efforts to collect systematic information and to establish qualitative norms for the care of drug abusers was focused on professional standards, ethical standards, a needs assessment, an evaluation of effectiveness and an economic evaluation [10]. The effort resulted in the formulation of guidelines, assessment procedures and checklists for each domain.

How to Determine (Minimum) Quality Standards

A crucial question concerns the methods and the criteria for defining quality standards. Some methods have been implemented, such as establishing guidelines for guidelines [11], a system to determine the evidence of effectiveness (e.g. the GRADE model [12]), or systematic expert consensus (e.g. the AGREE model [13]).

Each of these approaches has its merits and its limitations. Deficiencies of guidelines mainly concern a poor inter-observer reliability in interpretation of the guidelines, a limited applicability of recommendations, an incomplete specification of exceptions that may require deviations from the guidelines, and frequently unknown effects on patient outcomes [14]. Additionally, it is possible that the expected outcomes as predicted by efficacy studies will not be attained when implemented under field conditions [15] and in different socio-cultural settings. The GRADE system gives randomised controlled studies the highest grade, but they are not applicable for many structural and procedural quality standards. Moreover, results from randomised controlled studies are only of limited relevance for many more complex patients' drug problems in real-life treatment situations.

The Study on the Development of an EU Framework for Minimum Quality Standards and Benchmarks in Drug Demand Reduction (EQUS) made an attempt to combine these approaches. The study collected relevant guidelines and other documents from all EU member states and extracted from those a set of minimum quality standards for interventions, services and treatment systems, and harm reduction approaches.

How to Find Consensus

To find a consensus in which quality indicators are relevant for the formulation of substance abuse treatment is challenging. Harm reduction guidelines or standards can be difficult to implement on a national level, and even more so across several countries, as would be the case for European guidelines and standards. Top-down introduction and the implementation of evidence-based medicine in the treatment of substance abuse disorders is at risk of failure in many domains. One prominent example of such a failure was the Quality Enhancement Research Initiative from the US Veterans Health Administrations [16] that did not account, according to its own reports [17], for the local conditions and opinions of local leaders, and

did not allow for the creation of networking opportunities to enhance stakeholder interactions and maintain enthusiasm in the programme. On a local level, top-down implementation processes can be more successful. For example, the top-down implementation, from research to practice, of an evidence-based treatment for substance abuse disorders and total quality management as a fundamental process redesign programme in a large Dutch addiction treatment centre was a remarkable success [18].

Historically, detailed reflections, explanations and models of consensus-building processes stem from large multicultural parliamentary authorities [18]. The Delphi method, a method that uses expert judgements and compares these judgements with the aggregate judgements of other participating experts until a consensus is reached [19], was introduced in the early 1970s to social policy and public health consensus-building processes and was also used to reach a consensus on drug policy priorities [20] in the USA in 1973. The concept of targeting a large population for a Delphi method-based consensus process with the assistance of internet-based survey methods was first described in 2001 [21].

Aims of the EQUS Study

The EQUS study aimed to document existing standards, guidelines and other relevant documents on quality in treatment, rehabilitation, and harm reduction within the EU member states and at the international level. It also aimed to screen this documentation for relevance and then set up a comprehensive inventory of quality standards and guidelines in the field of drug demand reduction. Moreover, it aimed to perform a gap analysis to identify areas where quality standards do not exist.

Second, the EQUS study aimed to establish well-accepted and consensus-based minimal quality standards (MQS) for prevention, treatment, rehabilitation, and harm reduction in European countries based on this inventory. The development of quality standards in drug prevention has been published earlier by our collaborating partners [22] and was also integrated into the EQUS study [23].

Methods

Framework of Quality Standards

The quality of an intervention in the EQUS study was determined according to the American Institute of Medicine [2, 24] by (1) having the intended effects, (2) minimizing (acceptable) unintended effects, and (3) making the best use of available resources. The quality of a service was determined by (1) having adequate resources, (2) having clear instructions for the staff to follow during their daily routine and in special situations, (3) having a satisfactory rate of positive outcomes, and (4) having a satisfactory ratio between resources and the target population served. The quality of a system was determined by (1) complying with the legal and ethical framework in the respective country, (2) having satisfactory systematised cooperation among services to satisfy the needs of the target populations, realise synergies and avoid unproductive conflict, (3) providing satisfactory coverage of the target populations in need of interventions, and (4) having a satisfactory ratio between resources and overall intervention effectiveness.

These factors are summarised under the headings of structural quality, process quality, and outcome quality for more than three decades [24]. Structural quality involves personnel and physical requirements to perform services. Process quality covers dimensions and aspects that are relevant for daily work in the different work areas that define a high professional standard. Outcome standards assess and inform about the effectiveness of interventions aiming at the well-being of the patient/client. All of these factors have to be regarded as dependent on each other and some overlapping can occur [24]. Table 1 gives a systematic overview of the various subtypes of quality standards, according to the levels where they apply.

Document Search

Members of the EQUS expert group were instructed to search for documents in their respective countries/languages and to screen them for information on quality standards. Therefore, detailed instructions for the areas of treatment/rehabilitation and harm reduction were developed according to an initial proposal of the main authors, a pilot test and a finalisation of instructions in the EQUS expert group. Structured electronic Excel templates for the extraction and transmission of relevant information from the selected documents were developed. To avoid misunderstandings, manuals were developed for these two processes. The language of the documentation was English, and the translations from the documents into the templates were performed by the EQUS expert group, with special solutions for Central and Eastern European Countries (CEEC) [23].

In addition, some relevant information was assessed:

- the document source (literature review, expert opinion, expert consensus, research project, practice experience);
- the evidence grade (A: highest degree of evidence: review from multiple randomised controlled studies (RCTs) with convergent results; B: moderate degree of evidence: prospective comparative longitudinal studies without control design; C: low degree of evidence: single intervention/service follow-up studies, case studies; D: very low degree of evidence: non-systematic observations, and E: not known) adopted from the GRADE system for scientific evidence in medicine [25], and
- the level of obligation (mandatory vs. recommended) was assessed during the completion of the templates.

Setting Up the Inventory

To set up the inventory, the following selection criteria were applied after careful discussion in the EQUS expert group: (1) published documents were selected if they provided information on quality indicators and/or standards on specific interventions and/or specific settings and/or regional/national networks, (2) international documents were only selected if they were relevant at the nation-

Table 1. Overview of possible types of quality standards according to Donabedian [24] and the Institute of Medicine [2]

	Level 1: interventions	Level 2: services	Level 3: systems and policies
Structural quality	Type of setting needed for implementation	Resource standards	Legal and ethical adequacy standards
Process quality	Implementation standards	Procedural standards	Standards for networking and cooperation among services
Outcome quality	Effectiveness standards	Effectiveness standards	Coverage standards
Benchmarks	Cost-benefit ratio	Cost-utilisation ratio	Cost-effectiveness ratio

al level, (3) priority was given to official documents (e.g. by health authorities, professional associations, etc.), research reviews and research reports, and (4) standards/guidelines that were exclusive to the drug field and not the broader healthcare field were included.

To allow for a meaningful differentiation of standards for various settings and interventions, the model design for standards in the fields of treatment/rehabilitation and for harm reduction was divided according to the chosen specification (table 1). Moreover, a special category of 'reference documents' was created, as not all documents were equally important, with the following criteria: (1) it should be a national document, (2) it should have an evidence grade A or B for treatment/rehabilitation or an evidence grade A, B or C for harm reduction, and (3) it should be based on a systematic literature search or expert consensus.

Descriptive statistics were calculated for preliminary comparisons of numbers of documents between structural, process and outcome standards. To compare numbers of documents per evidence grade, the following weighting was applied for evidence grades: A = 4, B = 3, C = 2, D = 1, and E = 0 (no evidence). The gap analysis was performed qualitatively.

Recruitment of Stakeholders for Survey Participation

Members of the EQUS expert group, national focal points from the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the World Health Organisation (WHO), and special advisers were invited to nominate relevant stakeholders for participation in the survey [23], to inform the stakeholders of their nominations and to send their contact details to the Swiss Research Institute for Public Health and Addiction (ISGF), the coordinating research institute, in Zurich, Switzerland. They were further instructed to designate stakeholders who were health and social professionals or representatives of public authorities, health insurers, user groups and church organisations. The online survey invitation was sent directly from ISGF, together with an official invitation letter from the director of the EU directorate-general justice.

Online Survey Method

Between January and April 2011, two rounds of online surveys were undertaken to gather expert opinions on the proposed list of MQS selected from the inventory. The aim of the surveys was to assess expert opinion across the EU to determine the level of agreement regarding the inclusion of particular standards (tables 2, 3) in the final lists of minimum standards. The questionnaire asked about the acceptability of each standard and about any expected problems for implementation. The questionnaire was developed on the basis of feedback from the EQUS expert group and the EMCDDA's Reitox Focal Points. A pilot version of the questionnaire given to the study partners resulted in a number of comments and improvements. Stakeholders were informed of the aim of the survey, that their answers would be processed anonymously, and that completion of the online survey would take approximately 30–60 min of their time.

In the first step, the stakeholders were asked to specify their names, the name of the country in which they mostly work, their main affiliation, job position, age, and main profession.

The second step was to gather expert opinions on the acceptability of the quality standards derived from the inventory. To enable stakeholders to make informed decisions concerning the acceptability of each standard, they were provided with the following information: (1) the range of countries having mentioned the standard in guidelines or similar reference documents, (2) the available evidence grade, (3) the source of the information, and (4) the legal status of the standard. During the presentation of this information, the participants were asked to give a statement on the overall acceptability of a standard and a statement on the acceptability for different services and interventions in their country. Moreover, for each standard, the participants had to state the implementation status and feasibility of implementation in their country.

Initially, an online Delphi consensus process was intended. The level of consensus was remarkably high after the first round of testing. However, not all of the European countries were represented, therefore the EQUS expert group decided to assess stakeholders from every European country, to foster participation in a later implementation of the MQS. Thus, in the second round, the same survey was repeated with a broader recruitment strategy.

European Conference of Stakeholders

A European conference with participation by a wide range of different stakeholders was organised as an essential part of the consensus-building process. This technical conference, hosted by the European Commission in association with the Hungarian Presidency of the EU, was designed to bring together a range of stakeholders to discuss the preliminary findings of the EQUS study. The conference took place in Brussels on June 15–17, 2011, and attracted over 100 participants, including policy-makers, practitioners, NGOs and researchers in the fields of drug prevention, treatment and harm reduction, from across the EU. The objectives of the conference included discussion of the proposed list of minimum quality standards according to the online survey (tables 2, 3) and outlooks on their implementation.

Table 2. Treatment and rehabilitation standards investigated in the online expert survey

Draft number, group, description, and explanation of quality standard	
Structural standards of services	
TR1	Accessibility: location (service can easily be reached by public transport)
TR2	Physical environment: space (e.g. service has separate rooms for individual counselling)
TR3	Physical environment: safety (service is equipped for reanimation and other emergencies, e.g. management of overdose)
TR4	Indication criteria: diagnosis (treatment indication is always made on the basis of a diagnosis)
TR5	Staff composition: education (e.g. at least half of staff has a diploma in medicine, nursing, social work, or psychology)
TR6	Staff composition: transdisciplinarity (e.g. service employs a multidisciplinary team composed of at least 3 professions)
Process standards of services	
TRs7	Assessment procedures: substance use history, diagnosis and treatment history have to be assessed
TRs8	Assessment procedures: somatic status and social status have to be assessed
TRs9	Assessment procedures: psychiatric status has to be assessed
TRs10	Individualised treatment planning (treatment plans are tailored individually to the needs of the patient)
TRs11	Informed consent (patients must receive information on available treatment options and agree with a proposed regime or plan before starting treatment)
TRs12	Written client records (assessment results, intervention plan, interventions, expected changes and unexpected events are documented completely and updated for each patient in a patient record)
TRs13	Confidentiality of client data (patient records are confidential and exclusively accessible to staff involved in a patient's treatment or regime)
TRs14	Routine cooperation with other agencies (whenever a service is not equipped to address all needs of a given patient, another appropriate service is available for referral)
TRs15	Continued staff training (staff is regularly updated on relevant new knowledge in their field of expertise)
Process standards of interventions (TRi) and services (TRs)	
TRi7/TRs7	Assessment procedures: substance use history, diagnosis and treatment history have to be assessed
TRi8/TRs8	Assessment procedures: somatic status and social status have to be assessed
TRi9/TRs9	Assessment procedures: psychiatric status has to be assessed
TRi10/TRs10	Individualised treatment planning (treatment plans are tailored individually to the needs of the patient)
TRi11/TRs11	Informed consent (patients must receive information on available treatment options and agree with a proposed regime or plan before starting treatment)
TRi12/TRs12	Written client records (assessment results, intervention plan, interventions, expected changes and unexpected events are documented completely and updated for each patient in a patient record)
TRi13/TRs13	Confidentiality of client data (patient records are confidential and exclusively accessible to staff involved in a patient's treatment or regime)
TRi14/TRs14[1]	Routine cooperation with other agencies (whenever a service is not equipped to address all needs of a given patient, another appropriate service is available for referral)
TRi15/TRs15[1]	Continued staff training (staff is regularly updated on relevant new knowledge in their field of expertise)
Outcome standards at the system level	
TR16	Goal: health stabilisation/improvement (treatment must be aimed at improvement or stabilisation of health)
TR17	Goal: social stabilisation/integration (treatment must be aimed at improvement of social stabilisation or integration)
TR18	Goal: reduced substance use (treatment must be aimed at a reduction of substance use, e.g. helping the client/patient to reduce the use of or to abstain from psychotropic substances)
TR19	Utilisation monitoring (services must periodically report the occupancy of treatment slots or beds)
TR20	Discharge monitoring (e.g. ratio of regular/irregular discharges, retention rates, etc., have to be periodically monitored)
TR21	Internal evaluation (services must regularly perform an internal evaluation of their activities and outcomes)
TR22	External evaluation (services must regularly allow an evaluation of their activities and outcomes by an independent external evaluator)
TR23[1]	Cost-effectiveness ratio (positive outcomes, e.g. number of abstinent patients in relation to treatment costs)
TR24[1]	Cost-benefit ratio (tangible benefits, e.g. years of increased life expectancy in relation to treatment costs)

[1] These MQS were excluded from the list after the conference.

Table 3. Harm reduction quality standards investigated in the online expert survey

Draft number, group, description, and explanation of quality standard	
Structural standards of interventions	
HR1	Accessibility: costs not to be paid by clients (exclusion of costs that limit the accessibility for poor clients/patients)
HR2	Accessibility: location (service can easily be reached by public transport)
HR3	Accessibility: opening hours (adjusted to the needs of clients/patients, e.g. evenings and weekends)
HR4[1]	Staff qualification: minimal qualification (*staff has to be qualified and the staff qualifications have to be made transparent,* e.g. at least half of staff has a diploma in nursing or social work)
HR5[2]	Staff composition: transdisciplinarity (e.g. service employs a multidisciplinary team composed of at least 2 professions)
HR6[1]	Indication criteria: age limits *[(1) services have to be age-appropriate and staff have to be trained to meet age-appropriate client's needs, (2) there should be no age limits in harm reduction services]*
HR7[2]	Indication criteria: diagnosis (treatment indication is always made on the basis of a diagnosis or, if not possible, a detailed assessment of the current substance use)
Process standards of interventions	
HR8	Assessment procedures: risk behaviour assessment (client's/patient's risk behaviour is assessed)
HR9	Assessment procedures: complete needs assessment and prioritisation [e.g. (1) harm reduction of intravenous drug use, and (2) reduction of used syringes in public spaces, etc.]
HR10	Assessment procedures: client/patient status (the client's health status is assessed)
HR11[1]	Informed consent (clients/patients must receive information on available service options and agree with a proposed regime or plan before starting an intervention. *Interventions should not be based on written informed consent, but rather on transparent information regarding all the treatments offered by a service*)
HR12	Confidentiality of client data (client/patient records are confidential and exclusively accessible to staff involved in a client's/patient's intervention or regime)
HR13[2]	Written client records (assessment results, intervention plan, interventions, expected changes and unexpected events are documented completely and updated for each client/patient in a client/patient record)
HR14	Individualised treatment planning (intervention regime and intervention plans, if applicable, are tailored individually to the needs of the client/patient)
HR15	Routine cooperation with other agencies (whenever a service is not equipped to address all needs of a given patient/client, another appropriate service is available for referral)
HR16	Continued staff training (staff is regularly updated on relevant new knowledge in their field of action)
HR17	Neighbourhood/community consultation (avoiding nuisance and conflict with other people around the service)
Outcome standards at system level	
HR18	Goal: reduced risk behaviour (reducing unsafe injections, unsafe drug use and unprotected sex)
HR19[2]	Goal: reduced substance use (treatment must be aimed at a reduction of substance use, e.g. helping the client/patient to reduce the use of or to abstain from psychotropic substances)
HR20	Goal: referrals (treatment services must be prepared to refer patients to other health/social/treatment services if needed and agreed)
HR21	Internal evaluation (services must regularly perform an internal evaluation of their activities and outcomes)
HR22	External evaluation (services must regularly allow an evaluation of their activities and outcomes by an independent external evaluator)
HR23[2]	Utilisation monitoring (services must periodically report the occupancy of service slots)
HR24[2]	Cost-effectiveness ratio (positive outcomes, e.g. number of abstinent patients in relation to service costs)
HR25[2]	Cost-benefit ratio (tangible benefits, e.g. years of increased life expectancy in relation to service costs)

[1] These MQS were reformulated during the conference, reformulations are marked in *italics.* [2] These MQS were definitively excluded from the list after the conference.

HR1–3: these three standards were integrated into one MQS at the conference but were assessed separately in the online survey. HR6 and HR7 were integrated into one MQS and reformulated at the conference as described in HR6 in the table.

Therefore, the proposed lists of minimum quality standards in the areas of treatment and harm reduction contained standards that reached high (>80%), moderate (>50–80%) or low degrees (<50%) of consensus in the online surveys. Those with high consensus were presented for inclusion, those with moderate consensus were discussed for eventual inclusion, and it was proposed that those with a low consensus on acceptability would be excluded from the MQS lists. If a given standard was considered to be acceptable, with the exception of specific settings or interventions, this acceptability was mentioned in the presented lists.

Results

Inventory of Quality Standards

Overall, 564 documents were collected. Following a thorough review of the collected data, a total of 349 relevant documents were identified. Of these, 259 (74.2%) documents were identified as pertaining to treatment and rehabilitation, and 90 (25.8%) pertained to harm reduction. Among those, 29 (8.3%) documents met the criteria for reference documents for treatment/rehabilitation and 9 (2.6%) met the criteria for harm reduction reference documents.

There were no major differences between the regional distributions applied for the document sources, but the document totals in treatment/rehabilitation differed considerably more between the regions than those in the harm reduction category (for further details please visit the online supplementary tables; for all online suppl. material, see www.karger.com/doi/10.1159/000350740).

The resulting inventory contains a comprehensive list of quality standards and benchmarks emerging from the analysis of the templates (tables 2, 3). In treatment/rehabilitation, the highest numbers of documents were identified in process standards (m = 82.0, SD = 23.7, median = 84.0), followed by structural standards (m = 142.4, SD = 20.7, median = 84.0) and outcome standards (m = 74.2, SD = 53.0, median = 57.0; table 3). Similarly, the highest level of evidence was also found in process standards (m = 10.5, SD = 11.1, median = 9.0), whereas the levels of evidence in structural standards (m = 3.1, SD = 4.6, median = 2.5) and in outcome standards (m = 4.0, SD = 5.5, median = 3.0) were comparable in treatment/rehabilitation.

The numbers of documents identified in harm reduction did not differ appreciably (process standards: m = 28.9, SD = 9.1, median = 28.0; structural standards: m = 23.4, SD = 6.9, median = 24.0; outcome standards: m = 25.6, SD = 19.5, median = 22.5). Low levels of evidence were found in process standards (m = 1.6, SD = 2.3, median = 0.0) and outcome standards (m = 1.7, SD = 2.5, median = 0.0); even lower levels of evidence were found in structural standards (m = 0.9, SD = 1.5, median = 0.0) in harm reduction.

Gap Analysis

In the inventory, we observed a lack of legal and ethical standards, coverage standards and economic standards (please visit the online suppl. tables at the journal website for more detailed information). Another gap existed in terms of available evidence for the proposed quality standards. There was a major deficit of documents that provide grades of evidence for specific standards; most standards were based on expert opinion and expert consensus or on literature reviews without having an evidence base. Among the treatment/rehabilitation standards, this was the case for most of the structural standards, for some outcome standards (treatment MQS number 17 (TR17), TR20) and especially for external evaluation (TR22). Among the harm reduction standards, there was no grade A or B evidence available for any structural standards (harm reduction MQS number 1 to 7 (HR1–HR7)), most process standards (HR8–HR17) or the economic standards of the outcome standards (HR23–HR25).

Stakeholder Characteristics in the Online Surveys

In total, 241 (46.9%) of the 514 invited stakeholders participated in the two rounds of online surveys. Stakeholders from all of the European countries except for Malta were represented. Stakeholder participants represented Northern (treatment/rehabilitation (TR): 21 participants; harm reduction (HR): 21 participants), Western and Southern (TR: 65; HR: 58), and Central and Eastern Europe (TR: 53; HR: 44). Of the participating stakeholders, 35.7% were from health and social affairs governmental organisations, 29.0% were from non-governmental organisations, 9.5% were from research groups/institutions, 5.0% were from the private health sector, 3.7% were from justice and police governmental organisations, and 2.5% were from professional organisations. The majority of the survey participants were in a leading position (43.2%) or heads of their organisation (22.8%) and 23.2% were employees. The top five main professions represented (49.4% of the total participants) were psychiatrists (14.1%), psychologists (11.6%), social workers (8.3%), public health staff (7.9%), and researchers (7.5%).

Consensus on the Proposed MQS

There was a high degree of consensus in the online survey regarding the proposed treatment/rehabilitation MQS (please visit the online suppl. tables for further re-

sults at the journal website). The only two MQS with moderate consensus (>50–80%) that were discussed for inclusion at the conference were the cost-effectiveness ratio (TR23) and the cost-benefit ratio (TR24) as outcome measures. The cost-effectiveness and cost-benefit standards were not included in the final treatment/rehabilitation MQS list as, at the conference, they were considered to be difficult to measure and that the results would be difficult to interpret. Accordingly, these standards were also the two MQS whose implementation received the highest percentages of not feasible at all answers (cost-effectiveness ratio: 22%, cost-benefit ratio: 32%). The final list included 6 structural standards for interventions (TR1–6), 9 process standards for services (TRs7–15), 9 process standards for interventions (TRi7–15), and 7 outcome standards (TR16–22). Those services that were listed as exceptions in the final list of 31 MQS were non-specialised teams (21 exceptions), prison-based services (10 exceptions), and office-based services (10 exceptions).

There was more disagreement in the harm reduction section of the survey. The three MQS on accessibility dimensions (HR1–3) were integrated in one new concept at the conference (table 3). There was agreement that the inclusion of peers should also be taken into account in the standard pertaining to staff composition (HR5). The MQS on age limits (HR6) and indication criteria (HR7) were reformulated (table 3). Moreover, the MQS on the confidentiality of informed consent (HR11) and client data (HR12) were also reformulated, and it was mentioned that the standard on referrals (HR15) should also include referrals to legal services. The MQS on utilisation monitoring (HR23) was dropped from the MQS list, although it was proposed for inclusion according to the result of the online survey.

The final list of harm reduction MQS included 3 structural standards of interventions (HR1–3 integrated into 1 standard, HR4, HR6), 9 process standards (HR8–12, HR14–16), and 4 outcome standards (HR18, HR20–22).

Implementation Status and Feasibility of Implementation

The best implemented treatment and rehabilitation MQS, according to the online survey, are staff composition/basic education (TR5, 47.9%), confidentiality of client data (TRs13, 56.0%; TRi13, 60.0%), and assessment procedures for substance use history, diagnosis and treatment (TRs7, 44.0%). The lowest implementation rates were found in the outcome standards of discharge monitoring (TR20, 14.8%), external evaluation (TR22, 7.8%), cost-effectiveness (TR23, 3.6%) and cost-benefit ratio (TR24, 2.2%). Most expected problems are reported from the MQS on service accessibility via public transport (TR1, 38.6%), transdisciplinary staff composition (TR6, 41.3%), routine cooperation with other agencies (TRs14, 35.7%; TRi14, 49.1%), continued staff training (TRs, 40.5%; TRi, 45.5%), discharge monitoring (TR20, 40.1%), and internal (TR21, 38.7%) and external evaluation (TR22, 53.2%).

Generally, harm reduction MQS were less implemented (mean percent (m%) = 24.4, standard deviation percent (SD%) = 12.1 vs. m% = 32.8, SD% = 13.3) and were more frequently categorised as not feasible at all (m% = 13.2, SD% = 7.4 vs. m% = 5.3, SD% = 6.9). The best implemented harm reduction MQS were minimal staff qualifications (HR4, 35.5%), informed consent (HR11, 39.5%), reduced risk behaviour (HR18, 39.8%), and referrals to other services (HR20, 42.3%). Most expected problems were reported regarding the proposed harm reduction MQS on accessibility (HR2, access to public transport, 44.9%; HR3, opening hours, 43.6%), routine cooperation with other agencies (HR15, 39.5%), continued staff training (HR16, 41.5%), and for almost all of the outcome standards. The most often expected problem categories were financial (treatment MQS: m% = 36.6, SD% = 13.5; harm reduction MQS: m% = 32.6, SD% = 13.7) and professional (treatment MQS: m% = 25.7, SD% = 7.9; harm reduction MQS: m% = 20.1, SD% = 6.7). Political problems, although more frequent for harm reduction (treatment MQS: m% = 7.3, SD% = 5.9; harm reduction MQS: m% = 11.0, SD% = 7.1), legal problems (treatment MQS: m% = 7.1, SD% = 4.7; harm reduction MQS: m% = 8.8, SD% = 5.2), and ethical problems (treatment MQS: m% = 6.1, SD% = 4.7; harm reduction MQS: m% = 7.8, SD% = 5.7) were explicitly less reported.

Discussion

The current study developed a comprehensive inventory of existing standards, guidelines and other relevant documents on quality in treatment, rehabilitation, and harm reduction within the EU member states and at the international level. This inventory was screened for relevance, and a gap analysis identified those areas where quality standards do not exist and where more development and research on quality standards are needed. In a comprehensive consensus-building process, a list of accepted treatment, rehabilitation and harm reduction MQS for European countries out of the inventory was developed, with detailed information on their implemen-

tation status. Moreover, expected implementation problems have been identified.

The inventory identified a lack of ethical and legal standards. A comprehensive list of ethical standards in terms of structural quality standards would include items related to professional competence and conduct in general, the rights and obligations of patients and staff, transparency of such rights and obligations, responsibility for services and information aimed at the general public [26]. Future proposals for legal standards must be examined on the basis of international and national legislation as well as national documents on accreditation norms for services and specific interventions. Particularly in regard to non-clinical interventions, further legal guidance ('research governance') is needed. Although some legal standards are available (e.g. on child protection), there is a lack of prescriptive legal standards specifying what non-clinical interventions and procedures are acceptable. Such standards are available for clinical interventions (e.g. governing the administration of methadone), but not for psychosocial interventions.

There is a paucity of documents that provide grades of evidence for specific standards; most standards are based on expert opinion, expert consensus or literature reviews without an evidence base.

It is not surprising that there is less evidence for harm reduction standards for a number of reasons. Harm reduction interventions and services were developed later and less frequently than treatment and rehabilitation interventions, although the number of documents did not substantially differ between regions. Moreover, research in the harm reduction field has concentrated on collecting observational data rather than on creating experimental designs. Additionally, research has focused more on evidence for the effectiveness of harm reduction approaches for specific objectives (e.g. the prevention of blood-borne infections [27]) than on the role of quality standards to be observed for specific intervention types or services. However, this type of evidence was not the focus of the EQUS study. The question was not whether recommendations could be made for the availability of an intervention or service based on relevant evidence, which would have been in line with the conceptualisation of guidelines [28], but rather which quality standards should be observed if a specific approach is made available in European countries and those who consider joining the European Union in the near future [23]. The sense of quality standards is to help to implement chosen interventions recommended in guidelines.

The consensus-building process achieved already a high level of acceptance in the first round of the online survey of the proposed list of MQS, especially in the treatment and rehabilitation section. This outcome persuaded the EQUS expert group to omit the planned Delphi consensus method applied in other studies [20] and to focus on increasing expert and stakeholder representation from all of the European countries. Exceptions regarding acceptability were observed for non-specialised teams and office-based services. In contrast, there was greater acceptance of prison-based services, and the MQS that were marked as exceptions were comprehensive. These findings could help to foster the introduction of treatment standards in European prison services and highlight the overall acceptance of treatment standards for prison treatment services in countries where they have been introduced or are in early development [27].

The implementation of treatment and rehabilitation MQS has already progressed, with reported implementation ranging from 20 to 60%. Post hoc analyses revealed that higher implementation percentages have not been reached in Eastern European countries. Consequently, these countries should be provided with adequate funding and training to improve the implementation of the corresponding MQS. Outcome quality and benchmark standards were rarely represented in the inventory of quality standards, in particular, the assessment of cost-effectiveness and cost-benefit ratios was rejected and found to be not feasible at all for many services and interventions during the consensus-building process. Thus, these standards should be handled with low priority, including in countries with high MQS implementation rates.

As expected, the acceptance level for the proposed harm reduction MQS was less than the level of treatment and rehabilitation MQS. Political problems were more prevalent in the implementation of the harm reduction MQS than in the treatment and rehabilitation MQS. Nevertheless, the final MQS list is of special importance for harm reduction as it is likely to foster the introduction, further development, and research of quality standards in this comparatively newer area of drug demand reduction.

Some important limitations merit consideration. The present lists of standards are not definite. It is expected that additional standards will be proposed in the future, for example on the continuity of care or on specific assessment methods. Some EQUS standards could be more specific for special client/patient groups like for example those with severe dual diagnoses or for those young client groups that are hard to be reached by classical addiction

services. Thus, future studies should review and further develop the EQUS standards application also for special client and patient groups. EQUS was a cross-sectional study; an update will be necessary. Moreover, stakeholder participants in the online survey were unequally distributed for individual European countries, although the distribution across larger European regions was acceptable.

In conclusion, the EQUS study gathered important information on the implementation status, feasibility of implementation and acceptance of MQS in Europe. This information should be utilised and expanded in the near future. Further research should by undertaken regarding the identified MQS to increase the evidence base behind the MQS, to find operationalisation to develop adequate measures for monitoring and evaluating these MQS in practice and to further develop the present list of MQS into a tangible tool for national stakeholders. As a next step, a European framework could be a way to encourage and guide good practice in accordance with national and local circumstances. The framework should provide an incentive to those countries where MQS do not yet exist and should motivate other countries to review and update their current practices. This framework could foster knowledge transfer and the development of training approaches for new practitioners in drug treatment, rehabilitation, and harm reduction.

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Disclosure Statement

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