Acceptance of Controlled Drinking Among Treatment Specialists of Alcohol Dependence in Japan

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Abstract — Aims: This study evaluated the acceptance of controlled drinking (CD) goals among physicians specializing in the treatment of alcohol dependence (AD) in Japan. Methods: A mailed questionnaire survey was sent to physician members of the Japanese Society of Alcohol-Related Problems (n = 222) who were specialists in the treatment of AD in Japan. The evaluated items included the acceptance of CD goals, the definition of CD, the reasons for accepting or rejecting CD and the patient factors used to make treatment-goal decisions. Results: CD as an interim goal on the way toward abstinence was accepted by about two-thirds of the specialists, while CD as a final goal was accepted by about one-third of specialists. Specialists supported harm-free drinking and a satisfactory quality of life, rather than alcohol consumption limits, as the definition of CD. Of note, a significantly higher percentage of specialists who rejected CD, compared with those who accepted CD, supported the disease model of AD as grounds for their decision. Specialists who accepted CD relied mostly on factors such as the severity of dependence, attitude toward CD and abstinence, and the level of psychological dependence and social stability, when making treatment-goal decisions. Conclusion: CD was accepted as an interim goal by two-thirds and as a final goal by one-third of Japanese physician specialists. Despite differences in drinking cultures and treatment circumstances, great similarities were found between this study and those conducted in Europe and North America with regard to the reasoning of treatment providers and the use of patient characteristics to make treatment-goal decisions.

INTRODUCTION

Traditionally, abstinence has been viewed as the optimal treatment goal for alcohol dependence (AD) in Japan. Although exact data are lacking, both inpatient and outpatient treatment programs are thought to be performed with total abstinence as the treatment goal at nearly all medical institutions and welfare facilities in Japan. A few psychiatric services have allowed patients with AD to drink moderately during the course of treatment. However, these practices were the result of hospital mismanagement or the over-accommodation of patients’ demands within the hospitals’ treatment principles; therefore, they have been regarded as exceptional cases arising from malpractice. The reason for this abstinence-oriented treatment tradition in Japan is not well understood, and literature on this topic is scarce. We can only assume that the founders of specialist treatment for AD in Japan regarded abstinence to be the only goal and that this notion was subsequently adopted by treatment providers. Undoubtedly, the abstinence-oriented approach used by self-help groups, such as the Japan Sobriety Association and Alcoholics Anonymous, has had a large impact on the treatment goals for AD among treatment providers in Japan (Higuchi and Kono, 1994; Yoshimura and Higuchi, in press).

In Europe and North America, fierce controversies over the attainability and sustainability of controlled drinking (CD) for patients with AD occurred from the 1960s to the 1980s. The controversy originated after the publication of a study conducted at Maudsley Hospital in London, where 7 out of 93 patients with AD who continued CD were followed-up for 7–11 years after treatment (Davies, 1962). This finding was further supported by the so-called Rand reports in the USA, in which 22% of the subjects successfully continued to drink moderately at an 18-month follow-up examination and 18% were engaged in non-problem drinking at a 4-year follow-up examination in a cohort of 758 men with AD (Polich et al., 1980). A study by Sobell and Sobell probably provoked the most debate (Sobell and Sobell, 1973). They conducted a randomized controlled trial on male subjects with gamma-alcoholism to compare the efficacy of CD-oriented behavioral therapies with that of conventional abstinence-oriented therapies. They found that CD-oriented therapies were superior to the latter with regard to the percentage of days spent functioning well, i.e. the days of abstinence or CD, for up to 24 months of follow-up after treatment (Sobell and Sobell, 1973, 1976). These studies, however, faced severe criticism in a series of studies that were published later (Pendery et al., 1982; Edwards, 1985; Helzer et al., 1985). Despite these renowned controversies, the studies had little impact on clinical practices in the USA (Peele, 1987) and other countries, including Japan.

In recent years, however, the need for harm reduction approaches that target reduction in alcohol consumption has been recognized, and some discussion has occurred as to whether such approaches are feasible in Japan. This change in recognition may have arisen for the following four reasons.

Firstly, many physicians have difficulties with treatment approaches in which abstinence is the only goal for the treatment of AD in daily practice. In many cases, patients who do not accept abstinence will refuse treatment with abstinence as its goal or will drop out of treatment. Thus, the number of patients who will accept or continue treatment is expected to increase if the following two-step approach is provided: treatment is started by reducing alcohol consumption, and if such treatment is found to be difficult, the therapeutic goal is changed to abstinence (Sobell and Sobell, 1995). In fact, the European Medicines Agency (EMA) also positions reduction in alcohol consumption as an interim therapeutic goal toward a final goal of abstinence in its own guidelines for the development of medicinal products for the treatment of AD (EMA, 2010).

Secondly, brief interventions for the purpose of reducing alcohol consumption in heavy drinkers have been shown to be successful (Whitlock et al., 2004; Bertholet et al., 2005). A randomized controlled study in Japan also shows the efficacy of brief interventions for reducing alcohol consumption (Cabinet Office and Japan Automobile Research Institute, 2014)
In addition, a new therapeutic approach including behavioral self-control training that targets CD has recently been developed and has been shown to be effective (Walters, 2000).

Thirdly, newly developed drugs for the treatment of AD have been found to be effective for reducing AD. Recent meta-analysis studies have shown that naltrexone is more effective for reducing alcohol consumption than for achieving abstinence (Rösner et al., 2008; Maisel et al., 2012). On the other hand, acamprosate, which is being developed in Japan, is effective for decreasing alcohol consumption as well as improving the abstinence rate (Chick et al., 2003). Topiramate and naltrexone depot formulation have also been confirmed to have similar efficacies (Garbutt et al., 2005; Johnson et al., 2007).

Lastly, a reduction in alcohol consumption tends to be accepted as a therapeutic goal in many countries. This tendency is especially seen in many European countries, Australia and others (Rosenberg et al., 1992; Dawe and Richmond, 1997; Klingemann and Rosenberg, 2009; Luquiens et al., 2011). In some countries, such as Sweden, the guidelines for the treatment of AD clearly define a reduction in alcohol consumption as well as abstinence as therapeutic goals (Läkemedelsverket, 2007). The above-mentioned EMA guidelines are considered to reflect these trends (EMA, 2010).

Given the recent possible changes in the recognition of AD treatment goals in Japan, we conducted a survey of physicians specialized in the treatment of AD. The mailed questionnaire survey covered questions regarding the acceptance of CD as a therapeutic goal, the definition of CD, the reasons for accepting or rejecting CD, and the factors used to make treatment goal decisions. Questionnaire items used in previous studies of this kind conducted overseas were included in this survey to facilitate the comparison of results among the studies (Rosenberg and Davis, 1994; Donovan and Heather, 1997; Klingemann and Rosenberg, 2009; Luquiens et al., 2011).

METHODS

Study subjects

The subjects of this study were physician members of the Japanese Society of Alcohol-Related Problems (JSARP) (n = 232) who were specialists in the treatment of AD. The JSARP is a clinically oriented scientific society that has the largest membership and number of participants at annual meetings among societies related to alcohol problems and other addictive disorders in Japan (Maruyama and Higuchi, 2004). Thus, the subjects were considered to be representative of treatment experts in this field in Japan.

Survey questionnaire

The questionnaire was a four-page A4 document entitled, ‘Survey Questionnaire on Treatment Goals of Alcohol Use Disorders’. The questionnaire items included physician background, forms of practice and questions regarding the acceptance of CD as an intermediate and a final treatment goal and the proportion of patients for whom CD might be regarded as appropriate. The questionnaire also included questions on concepts related to CD, the relative importance of various patient characteristics in treatment-goal planning, and the reasons for accepting or rejecting CD. To enable the results of this study to be compared with those of previous studies conducted overseas, the questionnaire items were created based on those used in the previous studies whenever possible (Rosenberg and Davis, 1994; Donovan and Heather, 1997; Klingemann and Rosenberg, 2009; Luquiens et al., 2011).

Survey procedures and data analysis

The questionnaire, along with a postage-prepaid return envelope and a letter requesting that the questionnaire be completed and returned anonymously, were mailed to the subjects in September 2011. As of the end of November 2011, we had received 146 responses, resulting in a response rate of 62.7%. The response rates did not differ among different age groups, sexes, expertise levels or institutions to which the respondents belonged. All the data were entered into a personal computer and were analyzed using the Statistical Analysis System (SAS), version 9.2. To test for differences in categorical data, the chi-square test was used with a significant level set at 0.05.

RESULTS

Backgrounds of the respondents

Table 1 shows the backgrounds of the physicians who responded to the questionnaire. The majority of respondents were male psychiatrists. More than half the respondents were 50 years of age or older. Nearly 70% were veteran physicians with at least 10 years of experience treating AD. Approximately two-thirds of the respondents worked at psychiatric hospitals that provided both inpatient and outpatient treatment services.

Acceptance of CD as a treatment goal

Approximately 65% of the specialists responded that they could accept CD as an interim treatment goal on the way toward total abstinence (Table 2). About one-third were able to accept CD as a final goal, but almost the same percentage of respondents rejected CD or could not make a decision regarding their attitudes toward CD. If CD was found to be acceptable, the specialists were asked about the percentage of patients in whom CD could be applied as a treatment goal.

<table>
<thead>
<tr>
<th>Items</th>
<th>Category</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (n = 146)</td>
<td>≤39 years</td>
<td>34 (23.3)</td>
</tr>
<tr>
<td></td>
<td>40–49 years</td>
<td>27 (18.5)</td>
</tr>
<tr>
<td></td>
<td>50–59 years</td>
<td>42 (28.8)</td>
</tr>
<tr>
<td></td>
<td>≥60 years</td>
<td>43 (29.5%)</td>
</tr>
<tr>
<td>Gender (n = 146)</td>
<td>Men</td>
<td>132 (90.4)</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>14 (9.6)</td>
</tr>
<tr>
<td>Expertise (n = 146)</td>
<td>Psychiatry</td>
<td>137 (93.8)</td>
</tr>
<tr>
<td></td>
<td>Internal medicine</td>
<td>9 (6.2)</td>
</tr>
<tr>
<td>Experience treating AD (n = 143)</td>
<td>≤9 years</td>
<td>46 (32.2)</td>
</tr>
<tr>
<td></td>
<td>10–19 years</td>
<td>35 (24.5)</td>
</tr>
<tr>
<td></td>
<td>≥20 years</td>
<td>62 (43.4)</td>
</tr>
<tr>
<td>Type of institution (n = 146)</td>
<td>Psychiatric hospital</td>
<td>100 (68.5)</td>
</tr>
<tr>
<td></td>
<td>General hospital</td>
<td>5 (3.4)</td>
</tr>
<tr>
<td></td>
<td>Clinic</td>
<td>41 (28.1)</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Type of treatment services provided (n = 146)</td>
<td>Inpatient only</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td></td>
<td>Inpatient and outpatient</td>
<td>100 (68.5)</td>
</tr>
<tr>
<td></td>
<td>Outpatient only</td>
<td>44 (30.1)</td>
</tr>
</tbody>
</table>
As shown in Table 2, the specialists endorsed a higher percentage of outpatients than inpatients. However, even for outpatients, the proportion was not very large, with more than half the specialists providing a response of between 1% and 25% for both the interim and final treatment goals.

We examined the possible relationships between the acceptance of CD as a treatment goal and the background information of the respondents, shown in Table 1, but could not detect any significant relations other than that between respondent age and the acceptance of CD as an interim treatment goal. Although the data are not shown, this treatment goal was more strongly supported by younger physicians than by older ones ($X^2 = 15.62, \text{ df} = 6, P = 0.0159$). Interestingly, a similar significant difference was not found between respondent age and the acceptance of CD as a final treatment goal.

**Definition of CD**

Table 3 compares the definitions of CD among three groups divided according to their acceptance of CD as a final treatment goal for AD. Around half the specialists in each group endorsed the actual level of alcohol consumption as a definition of CD, meaning that such patients should drink less than a defined alcohol consumption threshold. The respondents who replied positively to this definition were asked to specify the threshold in daily and weekly alcohol consumption values. Nearly all the respondents in the three groups gave a daily threshold of <45 g as their response, while >70% gave a weekly threshold of <200 g of pure alcohol.

Of note, harm-free drinking and a satisfactory quality of life (QOL) were endorsed more strongly as a definition of CD than a defined drinking threshold. More than three-quarters of the respondents in each group supported a definition of ‘drinking free from health and social problems’, and specialists who accepted CD tended to endorse this definition more strongly than in the other two groups, although the differences were not significant. Similarly, ‘QOL at a satisfying level’ was supported by more than 70% of the respondents in each group.

**Grounds for the acceptance or rejection of CD**

The specialists were asked to indicate the grounds on which they determined whether or not CD was an acceptable treatment goal. The respondents were presented with five grounds, listed in Table 3, and were instructed to answer whether these grounds were relevant by responding ‘yes’, ‘no’, or ‘undecided’ (Rosenberg and Davis, 1994). As is clearly shown in the table, the specialists belonging to each group unanimously endorsed ‘professional experience’ as being the strongest grounds. This result was especially true for specialists who had accepted CD as a therapeutic goal, with more than 90% of these specialists positively endorsing this item. Among the five grounds that were listed, the ‘disease model of AD’ is noteworthy. This item was supported by 65% of the specialists who rejected CD, which was much higher than the results for the other two groups ($X^2 = 9.19, \text{ df} = 2, P = 0.0101$).

The ‘research evidence’ item was supported by 27%–43% of the specialists, with relatively lower endorsement levels from specialists who rejected CD. The ‘personal drinking experience’ item was supported by 40%–55%, and the ‘drinking free from health and social problems’ item by 45%–68%.
experience’ and ‘institute’s policy on CD’ were not important, as only limited specialists endorsed these grounds.

**Characteristics used to make treatment-goal decisions**
The respondents who endorsed CD as an acceptable treatment goal were asked to rate on a five-point scale the relative importance of 12 characteristics in making decisions about abstinence vs. CD goals for their patients. The five-scale points for each characteristic were ‘very important’, ‘important’, ‘moderately important’, ‘minor importance’ and ‘no importance’. Table 4 shows the 12 characteristics and the percentages of respondents who rated each characteristic as either ‘very important’ or ‘important’ and who endorsed CD as an interim goal or as a final goal.

As shown in the table, the interim and final CD goal groups showed similar tendencies with respect to the order of importance. The factor considered to be the most important was ‘severity of dependence’, which was endorsed by more than 90% of the specialists who accepted the two CD goals. This factor was followed in importance by ‘attitude toward CD and abstinence’, ‘level of psychological dependence’ and ‘social stability’, all of which were rated to be important by more than 70% of the respondents in the two CD goal groups. For the interim CD goal group, ‘liver function’ and ‘drinking history’ were the next characteristics of importance, whereas ‘personality’ and ‘drinking history’ were the next characteristics of importance in the final CD goal group; all of these characteristics were supported by more than 50% of the respondents in each group. The least important characteristics were ‘length of past abstinence’, ‘age’, and ‘gender’ for the two groups.

With regard to the possible relationships between the acceptance of CD goals and these 12 characteristics, only the acceptance of CD as an interim goal and the ‘severity of dependence’ showed a significant relation, in which fewer specialists who rejected CD endorsed this factor than those who accepted CD ($X^2 = 12.76$, df = 2, $P = 0.0017$). Although not significant, a similar tendency was observed for the relationship between CD as a final goal and the ‘severity of dependence’.

**Table 4. Characteristics of patients that were used to make treatment-goal decisions by specialists who consider CD to be acceptable**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>CD as an interim goal (n = 94) $n$ (%)</th>
<th>CD as a final goal (n = 46) $n$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of dependence</td>
<td>87 (92.6)</td>
<td>42 (93.3)</td>
</tr>
<tr>
<td>Drinking history</td>
<td>55 (58.5)</td>
<td>27 (57.8)</td>
</tr>
<tr>
<td>Level of psychological dependence</td>
<td>75 (80.7)</td>
<td>37 (80.4)</td>
</tr>
<tr>
<td>Treatment history</td>
<td>46 (50.0)</td>
<td>22 (47.8)</td>
</tr>
<tr>
<td>Liver function</td>
<td>57 (60.6)</td>
<td>26 (56.5)</td>
</tr>
<tr>
<td>Criminal history</td>
<td>52 (55.3)</td>
<td>23 (50.0)</td>
</tr>
<tr>
<td>Attitude toward CD and abstinence</td>
<td>76 (82.6)</td>
<td>37 (84.1)</td>
</tr>
<tr>
<td>Social stability</td>
<td>71 (75.5)</td>
<td>37 (80.4)</td>
</tr>
<tr>
<td>Personality</td>
<td>49 (52.1)</td>
<td>31 (67.4)</td>
</tr>
<tr>
<td>Length of past abstinence</td>
<td>33 (35.1)</td>
<td>20 (43.5)</td>
</tr>
<tr>
<td>Age</td>
<td>29 (30.9)</td>
<td>19 (41.3)</td>
</tr>
<tr>
<td>Gender</td>
<td>13 (13.8)</td>
<td>6 (13.0)</td>
</tr>
</tbody>
</table>

The numbers and percentages in the table represent specialists who rated each item as either ‘very important’ or ‘important’.

The acceptance rate tended to be higher among European countries and lower among North American countries, ranging from 76% in the UK to 23% in the USA (Brochu, 1990; Rosenberg et al., 1992, 1996; Rosenberg and Davis, 1994; Dawe and Richmond, 1997; Donovan and Heather, 1997; Klingemann and Rosenberg, 2009), and the respondents differed in terms of their professional backgrounds in one study in which the subjects were individual specialists (Luquiens et al., 2011). The acceptance rate tended to be higher among European countries and lower among North American countries, ranging from 76% in the UK to 23% in the USA (Brochu, 1990; Rosenberg et al., 1992, 1996; Rosenberg and Davis, 1994; Dawe and Richmond, 1997; Donovan and Heather, 1997; Klingemann and Rosenberg, 2009; Luquiens et al., 2011). If our results are directly compared with those of these previous studies, Japan would fall between Canada and the USA, indicating a relatively low acceptance of CD. However, caution is needed in making such comparisons, as the objectives of most of the previous studies targeted not only AD, but also less severe types of alcohol problems, whereas our study focused only on AD.

Recently, Rosenberg and Melville (2005) conducted a similar survey of treatment service agencies in the UK and analyzed the data according to the severity of dependence (abuse vs. dependence) and the types of treatment goals (interim vs. final). According to their results, the acceptance rate of CD as an interim goal for the treatment of AD was 68%, while that for the treatment of AD as a final goal was 50%. When these data together with the published rate (49%) in a French study focusing on AD (Luquiens et al., 2011) are taken into account, the degree of acceptance of CD in Japan is not particularly low. Given the traditional belief and principles underlying clinical practices for AD in Japan, the acceptance rates that we observed were actually surprisingly high; this outcome might have been caused, at least in part, by the recent change in the recognition of CD, as mentioned previously.

With regard to the definition of drinking outcomes, abstinence is self-evident. It can be defined almost uniformly in terms indicating that a person does not consume alcoholic beverages and/or that the person maintains an alcohol-free lifestyle (Rosenberg and Davis, 1994). However, the definitions and descriptions of CD are more varied. A review of influential outcome studies revealed wide differences in how CD has been defined, and it is reasonable to suppose that this lack of constancy is partly responsible for the striking variations in reported rates (Heather and Tebbutt, 1989). The present study questioned Japanese specialists in the treatment of AD regarding their views on three different definitions of...
CD: a defined threshold for alcohol consumption, harm-free drinking and a satisfactory QOL. Among these definitions, harm-free drinking was the most strongly supported, followed by a satisfactory QOL. These results were somewhat different from the findings in the USA, where quantity and frequency limits were supported most strongly (Rosenberg and Davis, 1994). The Japanese Ministry of Health Labour and Welfare has defined the amount of alcohol consumption causing an increased risk of lifestyle-related diseases, corresponding to the concept of hazardous drinking in other countries. The thresholds for average daily pure alcohol consumption in this drinking category are 40 g for men and 20 g for women; these thresholds are quite similar to the daily CD thresholds for alcoholics that were endorsed by the majority of respondents. However, our respondents seemed to place greater emphasis on the consequences of drinking, rather than the drinking behavior itself. These results are similar to those obtained for French specialists, among whom the QOL was endorsed as the most important criteria for the successful treatment of AD (Luquiens et al., 2011).

Overall, specialists who endorsed CD based their decisions to a greater extent on professional experience and to a lesser extent on the disease model of AD and research evidence. These grounds were widely supported by studies conducted in many countries including the UK, Canada, the USA, Australia and Switzerland (Rosenberg et al., 1992, 1996; Rosenberg and Davis, 1994; Donovan and Heather, 1997; Klingemann and Rosenberg, 2009). On the other hand, specialists who rejected CD were more likely to base their decisions on the disease model. A greater reliance on the disease model by specialists who rejected CD was also found in studies performed in Australia and the USA (Rosenberg and Davis, 1994; Donovan and Heather, 1997). In general, the patterns of preferred grounds for making decisions regarding treatment goals in this study were commonly observed in other countries.

No patient characteristic has received more attention as a predictor of CD than the severity of dependence. According to the severity hypothesis, the greater an alcoholic’s physical dependence on alcohol, the less likely it is that the person will be able to control his or her alcohol consumption (Orford and Keddie, 1986). Therefore, CD is considered to be achievable by alcoholics with fewer signs of dependence. In fact, this characteristic has been widely supported as a predictor of the feasibility of CD in reviews (Chase et al., 1984; Rosenberg, 1993), in a survey of the general population (Dawson et al., 2005) and as a patient factor used to make treatment-goal decisions in previous surveys (Rosenberg et al., 1992, 1996; Rosenberg and Davis, 1994; Klingemann and Rosenberg, 2009). In our study, this factor was also supported by nearly all the specialists who accepted CD as a treatment goal.

Other factors endorsed by the majority of specialists in this study were attitude toward CD and abstinence, the level of psychological dependence, social stability and drinking history. These factors have also been widely supported by other studies (Rosenberg et al., 1992, 1996; Rosenberg, 1993; Rosenberg and Davis, 1994; Klingemann and Rosenberg, 2009). These results indicate that even beyond differences in drinking cultures and treatment circumstances, the above-mentioned factors are commonly considered to be important when treatment providers are making treatment-goal decisions.

Finally, the possible methodological limitations of this study should be discussed. The number of subjects might have been insufficient, and the subjects might not have been representative of all treatment providers for patients with AD in Japan. Because the JSARP is a clinically oriented scientific society, the subjects in this survey may cover the broad array of specialists who are involved in the treatment of AD. However, it is also true that a certain number of specialists do not actively participate in the JSARP academic society; thus, this group may be under-represented in the present study. Secondly, the response rate of 63% was clearly far from ideal. However, this rate might be acceptable, given the similarity to response rates reported in previous research on this topic.

REFERENCES


