

The 8-Year Course of Alcohol Abuse: Gender Differences in Social Context and Coping

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Background: The aim of this study was to compare women ($n = 230$) and men ($n = 236$) who had alcohol use disorders in terms of social context and coping methods and in terms of changes in these indices associated with participation in professional treatment and Alcoholics Anonymous (AA).

Methods: Initially untreated problem drinkers were followed up for 8 years.

Results: Women and men did not differ in regard to the type of help received, but women had longer professional treatment. At baseline, women had more stressors and fewer resources from family and relied more on avoidance coping and drinking to cope. During the next 8 years, women, more so than men, increased on approach coping and reduced their use of avoidance coping and drinking to cope. When baseline status was controlled, women had better social resource, coping, and drinking outcomes than men did at 1 year and 8 years. A longer duration of professional treatment during year 1 was associated with improved approach coping among men but not women. A longer duration of AA attendance during year 1 and the full 8 years was associated with more resources from friends, more use of approach coping, and less drinking to cope. In turn, more friends resources and approach coping and less drinking to cope were associated with better drinking outcomes. Decreases in avoidance coping and drinking to cope were more strongly associated with better drinking outcomes among men than among women.

Conclusions: It may be important to target men for formal services or self-help to increase their use of approach coping in efforts to maintain abstinence. Women's strategies for improving their social context need further explication to be adapted for transfer to male problem drinkers.

Key Words: Alcoholism, Gender, Treatment, Self-Help, Coping.

SOCIAL STRESSORS AND resources and methods of coping are recognized as critical to understanding the outcome of participation in professional alcohol treatment and in Alcoholics Anonymous (AA) and the long-term course of alcohol problems. Studies have demonstrated that chronic stressors, such as those related to family, increase the risk of alcohol relapse (Brennan and Moos, 1996; Brown et al., 1995; Cooper et al., 1992). Regarding social support and coping, individuals who experience ongoing resources from family and friends are more likely to remit from problem drinking (Gordon and Zrull, 1991; Moos et al., 1991; Noone et al., 1999), and reliance on approach rather than avoidance coping among patients in

alcohol treatment is predictive of better treatment outcomes (Chung et al., 2001; Madden et al., 1995; Wunschel et al., 1993). Therefore, help that facilitates problem drinkers' improvement of their social context by reducing chronic stressors and enhancing resources and their acquisition of effective coping skills may promote abstinence and decrease the risk of relapse.

Gender Differences in Social Context and Coping

Few studies have compared problem-drinking women and men in terms of social context, coping, or associations between obtaining help and changes in social context and coping skills. Before obtaining help for drinking problems, women may experience more social stressors than men do. Family conflict was a prominent chronic stressor for problem drinking women (Turnbull and Gomberg, 1991), and, among middle-aged problem drinkers, women experienced more family-related stressors than men did (Brennan et al., 1993). However, women also tended to have more support from family members and friends, suggesting that problem-drinking women may remain more socially integrated than their male counterparts (Brennan et al., 1993). In addition, male problem drinkers were overly dependent on their wives for support (Brennan et al., 1993), which helps to explain findings that a poor spousal relationship showed

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stronger associations with increased drinking among men than among women (Romelsjö et al., 1991).

When responding to stressful circumstances, generally, men are more likely than women to rely on approach coping (i.e., behavioral attempts to deal with the challenge or cognitive attempts to manage interpretation of the threat), and women are more likely to rely on avoidance coping strategies that serve to discharge or deny emotion (i.e., take it out on other people or try not to think about it) (Billings and Moos, 1984; Endler and Parker, 1990; Hobfoll et al., 1994). Comparable gender differences in coping may hold among individuals with drinking problems. For example, in a comparison of women and men with alcohol use disorders, women were less likely to engage in direct problem-solving behavior (Conte et al., 1991). Men who drank and relied on avoidance coping exhibited greater alcohol involvement than did female drinkers who relied on this coping method (Cooper et al., 1992).

A few studies have focused specifically on drinking to cope, i.e., the tendency to use alcohol to escape, avoid, or otherwise regulate unpleasant emotions. Drinking to cope is associated with alcohol use and misuse among community adults (Cooper et al., 1988; Martin et al., 1992) and is a risk factor for the development of an alcohol use disorder (Carpenter and Hasin, 1999). A propensity for drinking to cope strengthened associations between emotional distress and drinking behavior (i.e., alcohol consumption, drinking-related problems) more for men than for women (Holahan et al., 2001).

In this article, we compare women and men with alcohol use disorders in terms of their social stressors and resources and in terms of their use of coping methods before their ever having obtained formal alcohol treatment. We also examine changes in women and men's social context and coping during 8 years after the baseline assessment. Given previous findings, we expected that women would have more chronic stressors but also more stable social resources in the domains of spouse, extended family, and friends; that women would engage in less approach and more avoidance coping, as well as more drinking to cope; and that women would improve in these areas as much as or more than men.

Gender Differences in Associations of Help With Social Context and Coping

In light of identified gender differences, we further asked whether a longer duration of formal treatment or of AA attendance was of comparable benefit to women and men with respect to these social context and coping variables. Growing evidence suggests that women benefit as much or more from professional treatment as men do on alcohol consumption (Brady and Randall, 1999; Foster et al., 2000; Jarvis, 1992). Possibly, women benefit more on drinking outcomes because formal treatment, as well as self-help participation, is associated with more improvement among women on social resources and coping methods.

For example, among alcoholic inpatients followed 3 to 15 months after discharge, women improved more than men did on family relationships (Schneider et al., 1995). A 1-year follow-up of alcohol inpatient treatment found a higher success rate, including social stability, for women than for men, perhaps because more women than men attended AA during follow-up (Alford, 1980). In the area of coping mechanisms, Amodeo and Kurtz (1998) found a lack of association between type of help (e.g., AA, formal therapy) and endorsement of approach and avoidant coping methods in a men-only sample. These results suggest that formal treatment and possibly self-help participation may benefit women's social context and coping more than they do those of men. On the other hand, both professional treatment and self-help approaches were designed mainly by and for men (Kaskutas, 1994; Reed and Mowbray, 1999), and so obtaining help for problem drinking may be more beneficial to men's than women's social contexts and methods of coping.

We looked for gender differences in associations between the duration of formal treatment or AA attendance and social context and coping outcomes. A considerable body of research has focused on variations in the duration of treatment and its association with drinking outcome (Finney and Moos, 2002), but these studies were mainly of men, and possible gender differences in associations of duration of help with social stressors and resources or coping have not been examined. Studies suggest that a longer duration of professional treatment and more sustained self-help group attendance are associated with better drinking outcomes as well as with better family adjustment and more use of approach coping (Fiorentine, 1999; Morgenstern et al., 1997; Ouimette et al., 1998).

Previous Findings From This Sample

In previous papers, we described treatment selection and outcomes during an 8-year follow-up for the sample studied here, i.e., individuals who had alcohol use disorders and had not yet received professional treatment at baseline (Timko et al., 1999, 2000a). Overall, there was a tendency toward fewer stressors and increased resources among individuals who obtained some help (Timko et al., 1994, 1999). We also found that, when baseline status was controlled, women had better drinking outcomes than men did at 1- and 8-year follow-ups (Humphreys et al., 1997; Timko et al., 2002). Generally, women and men did not differ on the extent to which obtaining help or a particular type of help was related to improved drinking outcomes. Here, we extend this study of women and men with alcohol use disorders to examine the outcomes of social stressors and resources and of coping; to focus on gender differences in the relation between participation in professional treatment and AA, and changes in life context and coping; and to consider the associations of these stressor, resource, and coping indices with alcohol-related outcomes.

To summarize, the purposes of this study were to compare initially untreated women and men with alcohol use disorders on (1) social context and coping during 8 years, (2) associations between longer durations of formal treatment and these indices during 8 years, (3) associations between longer durations of AA attendance and these indices during the same period, and (4) associations of social context and coping with drinking outcomes during 8 years.

MATERIALS AND METHODS

Sample and Procedure

Study participants were 466 individuals with alcohol use disorders who were followed up for approximately 8 years (mean = 92.6 months, SD = 6.6 months) after their initial contact with the alcoholism treatment system via an alcohol information and referral center (42%) or detoxification (58%) program. Participants were identified as having an alcohol use disorder by virtue of having had a detoxification episode at one of three cooperating detoxification centers or having contacted one of four cooperating alcohol information and referral centers as a result of having one or more substance use problems, dependence symptoms, drinking to intoxication in the past month, and/or perception of alcohol abuse as a significant problem. At baseline, data were collected from 628 individuals who had not received previous formal inpatient or outpatient treatment for problem drinking; participants with previous exposure to AA were accepted into the study. The initial data collection process is described in detail in Timko et al. (1993, 1994).

Follow-Ups. One, 3, and 8 years after entering the study, located participants were followed up by mail and telephone and were asked to complete an inventory that was almost identical in content to the initial one. Of the 582 individuals not known to have died before the 8-year follow-up, 483 were located, and 466 completed the follow-up inventory. Therefore, the 8-year follow-up rate for those persons not known to have died was 80%. Compared with individuals who completed only the baseline assessment, individuals who completed the 8-year assessment were more likely to be employed; otherwise, the two groups did not differ at baseline (Timko et al., 2002).

Measures

Stressors and Resources.

An adapted version of the Life Stressors and Social Resources Inventory (Moos and Moos, 1994) was used to assess chronic stressors and social resources in the domains of spouse/partner, relatives, and friends. Spouse/partner stressors ($\alpha = 0.81$) was the sum of five items (e.g., spouse disagrees on important issues), extended family stressors ($\alpha = 0.79$) was the sum of three items (e.g., relatives get on your nerves), and friendship stressors ($\alpha = 0.73$) was the sum of four items (e.g., friends are critical or disapproving of you) rated on a five-point scale (0 = never, 4 = often). Spouse/partner resources ($\alpha = 0.91$) was the sum of 10 items (e.g., count on spouse to help you), extended family resources ($\alpha = 0.78$) was the sum of three items (e.g., confide in relatives), and friendship resources ($\alpha = 0.88$) was the sum of six items (e.g., friends really understand how you feel) rated on the same five-point scale. Individuals without a spouse or partner did not report on stressors and resources in this domain.

Coping. The approach and avoidance coping measures were from an earlier version (available from C. Timko) of the Coping Responses Inventory (Moos, 1993; Moos and Holahan, 2003), which has been widely used among individuals with health problems (e.g., Coelho et al., 2003; Moorey et al., 2003). As Moggi et al. (1999) described, the Coping Responses Inventory assesses general, rather than substance-specific, coping. Approach coping was the sum of 18 items ($\alpha = 0.84$) rated on a scale of 0 (did not do this to deal with an important problem in the past year) to 3 (did this fairly often to deal with the problem); items covered active

cognitive (e.g., tried to see the positive side) and behavioral (e.g., tried to find out more) coping. Avoidance coping was the sum of 6 items (e.g., ate to reduce tension; $\alpha = 0.53$) rated on the same scale. The internal consistency of the avoidance coping scale was lower than optimal, but we used this variable because of its conceptual importance and because more reliance on avoidance coping was related to greater drinking problem severity at baseline (Finney and Moos, 1995). The correlations between approach and avoidance coping were -0.13 , -0.11 , and -0.07 at baseline, 1 year, and 8 years, respectively. Drinking to cope was a single four-point item that asked respondents whether, in trying to manage a significant problem, they tried to reduce tension by drinking more. Although use of a single item may underrepresent this construct and future research should develop and extend a broader measure, previous research has demonstrated the predictive strength of the single-item index in relation to drinking-related outcomes (Holahan et al., 2001, 2003).

Participation in Formal Treatment and Alcoholics Anonymous

At each follow-up, participants were asked, "Have you gone to anyone, anyone at all (a doctor, psychiatrist or psychologist, clergy or religious counselor, AA, detoxification unit, inpatient or outpatient treatment program, etc.) about your drinking habits or drinking-related problems since you completed our last questionnaire?" The month and year when the last questionnaire was completed were provided. If participants answered "yes," they were asked to record the following information about each source of help: person, agency, or type of help; month and year; number of weeks of help; and number of sessions or meetings attended. Because professional treatment programs often include an AA component, participants were specifically instructed to record each type of care separately. There is good support for the reliability and validity of self-reports regarding participation in substance abuse treatment (Adair et al., 1996; Golding et al., 1988) and in AA (Morgenstern et al., 1997; Tonigan et al., 2002).

These data were used to determine the duration, if any, of respondents' participation in professional treatment (i.e., outpatient, inpatient, or residential treatment) and in AA during year 1 of follow-up and during the full 8 years of follow-up. We focus on the duration of participation in help here because previous findings on this sample have shown that the duration of professional treatment or participation in self-help for alcohol use disorders has a stronger association with drinking outcomes than does the frequency with which either type of help is obtained (Moos and Moos, 2003, 2004).

Drinking Outcomes. To enhance the potential application of the findings, we focused on the clinically meaningful drinking outcomes of abstinence and freedom from drinking-related problems. Specifically, respondents were asked to describe their drinking during each month over the past 6 months. They were classified as to whether they were abstinent from alcohol during all months in the past six. In addition, an index of problems arising from drinking was taken from the Health and Daily Living Form by Moos et al. (1990). Participants rated how often (on a five-point scale, with 0 = never, and 4 = often) in the past 6 months they had experienced each of nine problems (e.g., with health, job, money) as a result of drinking. Participants were categorized as having either no drinking-related problems or one or more such problems. The continuous measure of drinking-related problems (range = 0–36, Cronbach $\alpha = 0.80$ at baseline) yields significant agreement between individuals with alcohol use disorders and collaterals (Finney and Moos, 1995), and results for the dichotomous measure have been shown to replicate those for the continuous measure (Timko et al., 2000a).

RESULTS

First, we compared women and men in terms of their demographic characteristics at baseline and in terms of whether and for how long they received professional treatment or attended AA. Then, we compared women and men over time in terms of stressors, resources, and coping.

Multiple regression analyses were conducted to examine associations of gender, duration of professional treatment or of AA attendance, and the interaction of gender by treatment or AA duration with each stressor, resource, and coping index at 1 year and 8 years, controlling for the baseline value of the corresponding follow-up outcome index. Multiple regression analyses were also conducted to examine associations of gender, social context, and coping with the two drinking outcomes.

Gender Differences in Demographics, Formal Treatment, and Alcoholics Anonymous Attendance

Table 1 shows that a higher proportion of women than men were white. Women and men did not differ in terms of marital status or religion. Women were less likely to be employed and, accordingly, had a lower average annual income. Women and men did not differ at 1 year or 8 years on the likelihood of obtaining professional treatment or of attending AA. There were no gender differences in terms of number of weeks of professional treatment during year 1 of follow-up; however, on average, women had a greater number of weeks of professional treatment through the 8-year follow-up than men did. There were no gender differences in terms of the number of weeks of AA attendance during year 1 or through year 8.

Gender Differences in Social Context and Coping During 8 Years

To ascertain differences between women and men in terms of social context and coping over time, we conducted doubly multivariate ANOVAs (MANOVAs). Separate MANOVAs were conducted for stressors, resources, and coping methods. When the overall F test for gender or for time was significant, post hoc univariate ANOVAs comparing women to men, baseline to 1 year, or 1 year to 8 years were conducted.

The MANOVA for stressors (spouse, extended family, friends) indicated a significant effect for gender [Wilks $\lambda = 0.95$, $F(3,462) = 2.88$, $p < 0.05$] and for time [Wilks $\lambda = 0.92$, $F(6,163) = 2.24$, $p < 0.05$]; the gender-by-time interaction was not significant. Univariate analyses and examination of group means revealed that, in comparison with men, women reported more stressors in their relationships with relatives at baseline but had fewer friend-related stressors at the 8-year follow-up (Table 2). In addition, spouse, extended family, and friends stressors diminished between baseline and the 1-year follow-up [$F(1,464) = 8.75$, 5.76, and 18.24, respectively, all $p < 0.05$].

The MANOVA for resources (spouse, extended family, friends) yielded a significant effect for gender [Wilks $\lambda = 0.89$; $F(3,462) = 7.03$, $p < 0.001$] but not for time or the interaction of gender by time. At baseline, in comparison to men, women reported fewer spouse/partner resources but more resources from friends (Table 2). At 1 year and 8

years, women had more resources from relatives and friends.

The MANOVA for coping (approach, avoidance, drinking to cope) found a significant effect for gender [Wilks $\lambda = 0.95$; $F(3,462) = 6.15$, $p < 0.001$] and time [Wilks $\lambda = 0.44$; $F(6,459) = 81.26$, $p < 0.001$] and a significant gender-by-time interaction [Wilks $\lambda = 0.96$; $F(6,459) = 2.87$, $p < 0.01$]. At baseline, women were more likely than men to use avoidance coping and reported more drinking to cope (Table 2). At 1 year, women relied more on approach coping than men did. At 8 years, women again relied more on approach coping and also were less prone to drink to reduce tension. Participants increased on approach coping and decreased on avoidance coping and drinking to cope between baseline and 1 year [$F(1,464) = 84.57$, 183.70, and 296.24, respectively, all $p < 0.001$]; they continued to decrease on avoidance coping and drinking to cope between 1 and 8 years [$F(1,464) = 30.07$ and 15.44, respectively, $p < 0.001$]. Women increased more on approach coping and decreased more on avoidance coping and drinking to cope over time than did men.

Gender Differences in Associations of Treatment Duration With Stressors, Resources, and Coping

Table 3 presents the results of multiple regressions that were conducted to predict 1-year and 8-year stressor, resource, and coping indices. In the regressions, block 1 entered the baseline value of the dependent variable (these results are not tabled), block 2 entered gender, block 3 entered the duration of professional treatment, and block 4 entered the interaction of gender by the duration of professional treatment. Because of the multiple tests conducted, we focus on results that are significant at $p < 0.01$. A longer duration of professional treatment during the first year of follow-up was associated with increases in approach coping and declines on drinking to cope. There was a significant interaction of gender by treatment duration on approach coping. Among men, longer treatment was associated with more use of approach coping, but among women, treatment duration was not associated with use of approach coping.

Table 3 also contains results of the regressions examining 8-year outcomes. Longer treatment was not related to stressors, resources, or coping at 8 years. There were no significant interactions of gender by treatment duration on stressors, resources, or coping.

Gender Differences in Associations of Alcoholics Anonymous Duration With Stressors, Resources, and Coping

Table 4 shows the results of parallel regressions in which gender, duration of AA, and their interaction were used to predict 1-year outcome indices, controlling for the baseline value of the dependent variable. A longer duration of AA attendance during year 1 was associated with more ap-

Table 1. Women and Men's ($N = 466$) Baseline Sociodemographic Characteristics, and Help Received at 1 and 8 Years

	Women	Men	χ^2
	($n = 230, 49.4\%$)	($n = 236, 50.6\%$)	
	n (%)	n (%)	
Race ($df = 1$)			
White ($n = 381$)	198 (86.1)	183 (75.5)	5.76*
Nonwhite ($n = 85$)	32 (13.9)	53 (22.5)	
Marital status ($df = 1$)			
Married ($n = 111$)	50 (21.7)	61 (25.8)	1.09
Unmarried ($n = 355$)	180 (78.3)	175 (74.2)	
Religion ($df = 1$)			
Affiliation ($n = 348$)	178 (77.7)	169 (71.6)	2.30
No affiliation ($n = 118$)	51 (22.3)	67 (28.4)	
Employment status ($df = 1$)			
Employed ($n = 209$)	92 (40.0)	117 (49.6)	4.33*
Unemployed ($n = 257$)	138 (60.0)	119 (50.4)	
Had professional treatment ($df = 1$)			
Year 1	129 (56.1)	120 (50.8)	1.29
Through year 8	161 (70.0)	162 (68.6)	0.10
Attended AA ($df = 1$)			
Year 1	98 (42.6)	132 (57.4)	3.18
Through year 8	163 (70.9)	149 (63.1)	3.16
	Mean (SD)	Mean (SD)	$F(1,464)$
Age	34.12 (9.58)	34.91 (9.21)	0.81
Education (years)	13.13 (2.21)	13.26 (2.28)	0.38
Annual income (3 = \$15,000–19,999, 4 = \$20,000–24,999)	3.20 (2.46)	3.76 (2.52)	5.46*
Hollingshead Index (1 = professional to 7 = unskilled)	4.66	4.81	0.86
Weeks of professional treatment			
Year 1	12.34 (17.21)	10.33 (16.64)	1.64
Through year 8	42.52 (68.82)	30.14 (54.57)	4.64*
Weeks of AA attendance			
Year 1	16.75 (22.05)	14.61 (21.17)	1.14
Through year 8	94.65 (131.51)	76.11 (119.89)	2.53

* $p < 0.05$.

proach coping and less avoidance coping and drinking to cope at the 1-year follow-up. At 1 year, there were no significant interactions of gender by duration of AA on stressors, resources, or coping.

Table 4 also shows the results of regressions in which gender, duration of AA, and their interaction were used to predict 8-year outcome indices, controlling for the baseline value of the dependent variable. A longer duration of AA participation was related to increases on friends resources and approach coping and to declines on drinking to cope. There were no significant interactions of gender by duration of AA on resources, stressors, or coping.

Social Resources and Coping Methods as Predictors of Drinking Outcomes

Table 5 presents the results of logistic regressions to predict 1-year and 8-year drinking outcomes (i.e., abstinent, no drinking-related problems). In the regressions, block 1 entered the baseline value of the dependent variable (these results are not tabled) and gender. Block 2 entered the change between baseline and 1 year (i.e., 1-year score minus baseline score) or between baseline and 8 years (i.e., 8-year score minus baseline score) of one of the social resource and coping variables predicted by duration of

professional treatment or AA (Tables 3 and 4). Block 3 entered the interaction between gender and the social resource or coping variable entered in block 2 (these results are not tabled). At 1 year, women were more likely to be abstinent and free of drinking-related problems than were men. Specifically, among women, 40.2% were abstinent and 58.7% had no drinking-related problems; among men, rates were 33.2% and 43.6%, respectively. More relatives and friends resources and use of approach coping and less use of avoidance coping and drinking to cope were associated with abstinence and having no drinking-related problems. There was a significant interaction between gender and avoidance coping on both abstinence ($\beta = 0.118, p < 0.05$) and the absence of drinking-related problems ($\beta = 0.173, p < 0.01$). That is, decreases on avoidance coping between baseline and 1 year were more strongly associated with abstinence and no drinking-related problems among men than among women, although decreases were beneficial on both outcomes for both gender groups.

At 8 years, women were more likely to be abstinent (54.3%) and have no drinking-related problems (71.3%) than were men (44.1% and 57.6%, respectively). More friends resources and use of approach coping and less drinking to cope predicted better drinking outcomes. There were no significant interactions.

DISCUSSION

This study of previously untreated problem drinkers found that women were generally functioning more poorly than men at baseline on stressor, resource, and coping indices. When women's poorer baseline status was controlled, women had better resource, coping, and drinking outcomes than men did at 1 year and 8 years. Longer durations of treatment and of AA attendance were associated with more use of approach coping and less use of drinking to cope during the first year of follow-up. In addition, a longer duration of AA participation during the 8 years of follow-up was related to increases in friends resources and adaptive coping skills.

Gender Differences at Baseline

Before obtaining help (i.e., at baseline), women had more extended family stressors and fewer spouse resources in comparison to men. Similarly, Blum et al. (1995) found that employed women with alcohol problems who used employee assistance programs were less satisfied with their marital relationship and were appraised by providers as having more family problems in comparison to their male counterparts. Kingree (1995) also reported that female clients of a substance use treatment center had less family support and blamed family more for their circumstances than men did. Women's more problematic marital and family relationships may reflect more opposition and less support by spouses and relatives for their seeking help (Jarvis, 1992). Also, alcoholic women are more likely than alcoholic men to be married to or living with an alcoholic (Blume, 1991), and so women often perceive their partners as providing little social support.

Initially, women in this study used more avoidance coping and engaged in more drinking to cope than men did. Consistently, Moos et al. (1990) found that female alcohol patients had poorer coping skills than men did at the time of entering treatment. Another study showed that alcoholic women were more likely than alcoholic men to use alcohol to cope with marital difficulties and to alter their mood (Olenick and Chalmers, 1991). In contrast, nonproblem drinking women are relatively unlikely to cope with stress by drinking (Breslin et al., 1995) and are less likely than men to drink to cope with stress (Abbey et al., 1993).

Possibly, problem-drinking women's tendency to drink to cope with relationship difficulties exacerbates these social stressors, which in turn leads to more drinking to cope. In a study that selected parents from the sample studied here, we found that poorer child-parent relationships at baseline and 1-year and 3-year follow-ups were consistent predictors of mothers' increased drinking and impaired psychological states on the subsequent follow-ups. However, associations between child-related stressors and fathers' adaptation were few and inconsistent (Timko et al., 2000b). These results bolster the likelihood that an undesirable cycle may be established in which women's drinking to cope and

Table 2. Women and Men's Social Context and Coping at Baseline, 1 Year, and 8 Years

	Women (n = 230)	Men (n = 236)	F(1,464)
	Mean (SD)	Mean (SD)	
Spouse stressors			
Baseline	9.4 (3.9)	8.8 (3.8)	3.40
1 year	8.4 (3.7)	7.9 (4.1)	1.14
8 years	8.1 (3.4)	7.8 (4.1)	0.93
Extended family stressors			
Baseline	5.5 (2.9)	4.7 (2.9)	10.54***
1 year	4.7 (2.6)	4.3 (2.8)	1.31
8 years	4.9 (2.6)	4.6 (2.7)	3.18
Friends stressors			
Baseline	5.4 (2.4)	5.7 (2.6)	1.10
1 year	5.1 (2.1)	5.4 (2.1)	1.44
8 years	4.7 (2.3)	5.5 (2.4)	5.10*
Spouse resources			
Baseline	27.8 (8.2)	30.6 (7.5)	7.60**
1 year	29.9 (7.2)	30.6 (8.5)	0.37
8 year	30.3 (6.8)	31.7 (7.2)	2.58
Extended family resources			
Baseline	7.6 (3.0)	7.1 (3.1)	3.04
1 year	8.1 (3.0)	7.1 (3.0)	11.07***
8 years	8.0 (3.0)	7.3 (2.8)	9.10**
Friends resources			
Baseline	17.8 (4.8)	16.9 (4.9)	3.93*
1 year	18.8 (4.0)	17.4 (4.5)	9.85**
8 years	19.4 (4.2)	17.5 (4.3)	22.97***
Approach coping			
Baseline	28.5 (9.7)	28.9 (10.6)	0.02
1 year	35.1 (8.2)	32.9 (10.0)	5.74*
8 years	34.9 (8.5)	32.8 (9.0)	6.78**
Avoidance coping			
Baseline	9.2 (3.7)	8.2 (3.7)	7.80***
1 year	6.2 (3.3)	5.8 (3.7)	1.72
8 years	5.1 (3.1)	4.9 (3.6)	0.02
Drinking to cope			
Baseline	3.3 (1.0)	3.0 (1.2)	6.23**
1 year	1.8 (1.1)	2.0 (1.1)	3.69
8 years	1.5 (0.9)	1.8 (1.1)	11.38**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

family stressors coexist in an ever-worsening reciprocal relationship.

Similarities and Differences in Outcome by Gender

We found that, from baseline to 1 year, both women and men increased their reliance on approach coping and decreased reliance on avoidance coping and drinking to cope. Further, both women and men continued to lessen their reliance on avoidance coping and on drinking to cope between year 1 and year 8. However, these improvements in coping over time were more apparent for women than for men. These findings gain importance when placed in the context of this study's findings and other reports (Litt et al., 2003; Russell et al., 2001) that improvements in coping are associated with recovery among individuals with alcohol use disorders, including those who do not enter professional treatment. However, the mechanisms by which women and men with drinking problems improve their coping skills have yet to be fully explicated, especially because specific coping skills training may not be essential for improvement to occur (Litt et al., 2003).

Table 3. Regressions Predicting 1- and 8-Year Outcomes From Gender, Duration of Professional Treatment, and Interaction of Gender by Duration, Controlling for Baseline Value of Outcome

	Stressors			Resources			Coping		
	Spouse/Partner	Relatives	Friends	Spouse/Partner	Relatives	Friends	Approach	Avoidance	Drinking to Cope
1-year outcomes									
Gender	0.03	-0.02	-0.04	0.03	0.12**	0.11**	0.12**	0.01	-0.12**
Duration of professional treatment	0.13*	0.07	0.09*	-0.09	0.08*	0.07	0.19***	-0.09	-0.14**
Interaction: gender × duration	-0.02	0.03	0.05	-0.09	-0.02	-0.12	-0.15**	0.09	-0.03
R ²	0.16***	0.24***	0.16***	0.19***	0.39***	0.21***	0.13***	0.18***	0.08***
8-year outcomes									
Gender	0.04	0.03	-0.09*	-0.05	0.10**	0.19***	0.12**	-0.04	-0.17***
Duration of professional treatment	0.10	0.10*	0.04	-0.08	-0.04	0.03	0.07	0.01	-0.07
Interaction: gender × duration	-0.07	-0.06	0.02	0.04	0.00	-0.05	-0.04	-0.02	0.01
R ²	0.04*	0.17***	0.10***	0.08***	0.23***	0.16***	0.05***	0.06***	0.04***

The table values are β s that reflect the extent of improvement in the model for each block. For gender, 1 = female and 0 = male.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 4. Regressions Predicting 1- and 8-Year Outcomes From Gender, Duration of AA, and Interaction of Gender by Duration, Controlling for Baseline Value of Outcome

	Stressors			Resources			Coping		
	Spouse/Partner	Relatives	Friends	Spouse/Partner	Relatives	Friends	Approach	Avoidance	Drinking to Cope
1-year outcomes									
Gender	0.03	-0.02	-0.04	0.03	0.12**	0.11**	0.12**	0.01	-0.12**
Duration of AA attendance	-0.01	-0.03	0.01	0.02	0.05	0.09*	0.17***	-0.13**	-0.21***
Interaction: gender × duration	0.10	0.08	0.10	-0.12	0.05	-0.02	0.04	0.00	-0.09
R ²	0.15***	0.24***	0.16***	0.19***	0.38***	0.21***	0.12***	0.19***	0.11***
8-year outcomes									
Gender	0.04	0.03	-0.09*	-0.05	0.10**	0.19***	0.12**	-0.04	-0.17***
Duration of AA attendance	-0.03	0.00	0.02	0.07	0.00	0.14***	0.16***	-0.09	-0.17***
Interaction: gender × duration	-0.01	0.00	0.03	-0.02	-0.02	-0.05	-0.03	0.00	0.00
R ²	0.03	0.16***	0.10***	0.08***	0.22***	0.18***	0.07***	0.07***	0.07***

The table values are β s that reflect the extent of improvement in the model for each block. For gender, 1 = female and 0 = male.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

The finding that women had better coping and drinking outcomes than men did (see also Timko et al., 2002) implies that women with alcohol use problems may be somewhat more able than their male counterparts to rally their social resources. In fact, women in general may have more ability than men do to use social support. For example, women are more likely to use coping methods that involve social joining and coalition building and are team oriented (Hobfoll et al., 1994). Accordingly, women may benefit more than men from programs designed to foster interdependent bonds with supportive peers, which may help them to develop into mature and autonomous yet socially connected individuals (Hänninen and Koski-Jännes, 1999; Huselid et al., 1991).

Gender Differences in Outcome by Duration of Help

Among men, a longer duration of professional treatment during year 1 was associated with more use of approach coping, whereas this was not true among women. In fact, women with no professional treatment relied more on approach coping than did untreated men. Also, women, unlike men, maintained a relatively stable level of approach coping across increasing durations of treatment. Perhaps women with no professional treatment were able to use

more approach coping because they had more social resources and fewer social stressors (Moos, 1994).

It is also necessary to consider why men who had a longer duration of professional treatment improved more on approach coping. In this regard, Murphy and Hoffman (1993) found that, at a 1-year follow-up, alcohol-dependent men, more frequently than women, were able to recall coping skills learned in treatment and to make use of the skills when highly stressful situations arose. Possibly, the cognitive and behavioral coping methods that were the focus of treatment resonated more with men than with women (Hobfoll et al., 1994). In the study of Murphy and Hoffman (1993), at 18- and 36-month follow-ups, there were no gender differences in coping. This is consistent with our result that, in the longer term (i.e., at 8 years), women and men did not differ on the relation of duration of professional treatment to use of approach coping.

A longer duration of AA participation during the first follow-up year and through all 8 years was associated with having more friends resources and using more approach coping and less drinking to cope. These relations did not differ by gender. Other research also has found that affiliation with AA is related to general friendship quality (i.e., positive aspects of friendships not specific to substance abuse), to friends' support for abstinence specifically, and

Table 5. Regressions Predicting 1- and 8-Year Drinking Outcomes, Controlling for Baseline Value of Outcome

	Abstinent (β)	No Drinking Problems (β)
1-year outcomes		
Gender	0.340*	0.622**
Block 2: change from baseline to follow-up on:		
Relatives resources	0.099**	0.119**
Friends resources	0.098***	0.082***
Approach coping	0.045***	0.034***
Avoidance coping	-0.145***	-0.141***
Drinking to cope	-0.849***	-0.695***
8-year outcomes		
Gender	0.445*	0.638**
Block 2: change from baseline to follow-up on:		
Friends resources	0.071***	0.053**
Approach coping	0.035***	0.027***
Drinking to cope	-0.830***	-0.750***

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

to increased active coping efforts, as well to maintenance of self-efficacy and motivation. In addition, increased affiliation with AA has been linked to better drinking outcomes (Humphreys et al., 1999; Morgenstern et al., 1997). To some, attending AA can itself be interpreted as a form of approach coping (Gillet et al., 1991).

In any case, the positive effects of more participation in AA appear to extend beyond drinking outcomes (Humphreys et al., 1999; Moos and Moos, 2004) to social resources and coping skills. In addition to facilitating relationships that support abstinence, the alterations in worldview that AA encourages often change members' appraisals of stressful life circumstances and attendant coping responses (Humphreys et al., 1996). Role modeling and experientially based advice on effective coping techniques to deal with stressors and triggers may be important mechanisms of action in AA (Kaskutas et al., 2002; Nealon-Woods et al., 1995).

Limitations and Conclusions

It is important to clarify the limitations as well as the strengths of our research design. This study used a naturalistic, self-selection design, rather than a randomized clinical trial design (Seligman, 1995). Accordingly, the differential changes shown by women and men may be due to self-selection, as well as any effects of participation in professional treatment or AA. For example, although we conclude from our findings that a longer duration of treatment or AA is associated with increases in social resources and coping, it also is likely that better social resources and coping enhance the benefits of help. Similarly, although we focused on the influence of social context and coping on alcohol-related outcomes, drinking patterns and outcomes also affect social relationships and methods of coping with stressors. In addition, because of the multiple tests we conducted, some significant findings may be due to chance. Nevertheless, the primary strengths of naturalistic studies

are their realism and external validity, and therefore, our findings probably are an accurate reflection of real-world gender differences in stressors, resources, and coping. Moreover, naturalistic and randomized clinical trial designs have reported comparable outcomes of self-selected and randomly assigned substance abuse patients (McKay et al., 1998; Moyer and Finney, 2002; Westerberg et al., 2000).

This study found that a lack of social resources and poor coping skills predicted active drinking and negative consequences of drinking among individuals with alcohol use problems. Over time, women increased more than men did on approach coping and declined more on avoidance coping and drinking to cope. In addition, women who did not receive professional treatment used as much approach coping as did men who participated in formal care. Moreover, decreased avoidance coping was a stronger predictor for men than for women of better drinking outcomes. Therefore, it may be especially important to target men for formal alcoholism services or AA and facilitate their entry into help, to increase their chances of developing a greater reliance on approach and less reliance on avoidance, to increase their chances of coping, and to improve their social context in efforts to achieve and sustain abstinence. [Timko et al., 1993]

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