

Focus on . . . Women's Issues in Behavior Therapy

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We began this series noting that, despite considerable social change in the last decade, the contingencies engendering and maintaining behavior patterns often continue to differ for men and women. To take obesity as an example, women, by virtue of being female, are expected to be the food preparers in our culture while at the same time exercising the considerable control necessary to achieve and maintain an unreasonable standard of thinness. And biological differences may affect its prevalence: hormonally influenced sex differences in the percentage of body fat may make it more difficult for women to maintain the currently approved slim-hipped body profile.

Gender differences are common and well-recognized in the prevalence of other disordered behavior such as phobia, depression,

substance abuse, and aggression. We must expect, then, that sex differences in treatment outcome and process are likely to occur. In this light it is surprising that behaviorists, who value the acquisition of empirical data on treatment effectiveness, infrequently examine their results for potentially illuminating sex differences. In the final article of this series, Resick, Calhoun, Rothblum, Darnall, and Blechman argue that researchers should routinely consider the possibility that sex differences may affect the data, for such data may introduce uncontrolled variability across experiments.

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Sex Bias in Behavioral Journals?

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Behavior therapy has been assumed to be a value-free technology. As such, there should be no built-in sex bias in behavior therapy. However, this assumption has come under question recently. In the preface to *Behavior Modification With Women*, Blechman (1984, p. xii) points out:

From the vantage point of the woman consumer, behavior modification is no more value free than any other form of psychological or medical intervention. The egalitarian argument that the basic mechanisms of behavior do not differentiate between the sexes has a fatal flaw. The same mechanisms operate in two different social environments, one male, one female. For better and for worse, the world treats women differently from men.

Unfortunately, it is not possible to move beyond the assumption stage at this point because so little research has considered this question. In fact the most elementary step—reporting the sex of subjects and analyzing for sex differences—may not always occur in behavior therapy journals.

There have been only a few surveys of gender of subjects in the psychological literature. A review of personality research (Carlson, 1971) indicated that male subjects are represented twice as frequently as female subjects and that over 20 percent of the articles reviewed did not state sex of subjects. Among studies that used subjects of both genders, less than half reported analyzing the data for sex differences. However, when studies did analyze data for sex differences, 74 percent of studies found significant sex differences to occur. In a commentary on gender representation in personality

research, Dan and Beekman (1972) stated that men are not only overrepresented as subjects but that studies using male subjects are more likely to generalize the results to people in general. Studies using female subjects are more likely to specify gender in the discussion.

Sex bias in choice of subjects is not limited to research on humans. Studies of animal behavior similarly overutilize males. A survey of the animal behavior journals (Hyde & Rosenberg, 1980) found that 62 percent of the articles reviewed used animals of one gender and 75 percent of those used males only.

If studies do not specify the sex of their subjects, or if both men and women are studied and the data analyzed together, the results cannot be accurately generalized to either sex. Sets of subjects matched for demographic or environmental factors, but not matched for sex, in group comparison studies are probably not equivalent because they do not match sex.

When researchers do specify the sex of their subjects and do use equal numbers of men and women, then sex differences which might be confounding should be inspected separately. If data are not analyzed separately, researchers run the risk of losing significant results or nonsignificant, heuristically valuable trends because each group's results may cancel the others out. Even if no significant differences are found between different sex subjects, that too is important information to report.

The purpose of the present study was to determine whether articles published in behavioral journals are specifying gender, analyzing for sex differences similarities, and discussing relevant findings in terms of differential socialization. Because the idea for this study emerged from a meeting of the Women's Issues in

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Sex Bias

Behavior Therapy Special Interest Group at the 1983 AABT Convention. It was decided that both *Behavioral Assessment* and *Behavior Therapy* should be analyzed.

Method

Articles appearing in *Behavioral Assessment*, Volumes 1 (1979) to 5 (1983), and *Behavior Therapy*, Volumes 1 (1970) to 15 (1984), constituted the sample of this survey. Each volume was rated by one of four coders. A fifth coder rated every fourth issue for reliability.

The articles were rated for the following information: (a) type of study (single case, group comparison, or editorial/review); (b) whether gender of subjects was specified and, if so, whether subjects were male, female, or male and female; (c) whether data were analyzed for sex differences; and (d) whether gender, gender differences/similarities, or sex role socialization was mentioned in the discussion section.

Results

Inter-rater reliability ranged from 82 to 94 percent for type of study, gender of subjects, and whether data were analyzed for sex differences. Reliability for discussion of gender was lower, ranging from 62 to 79 percent for the different journals.

Table 1 presents information on whether gender of subjects was specified, analyzed, and discussed. Data for earlier and later volumes of *Behavior Therapy* are presented separately so that trends over time could be identified. Table 1 also shows the percent of studies falling into the single case, group, or other categories. Table 2 shows a breakdown of whether gender was specified for each type of study.

Only a small percentage of studies failed to report the gender of their subjects. However, the more recent volumes of *Behavior Therapy* showed a small increase, not a decrease, in the number of studies failing to report gender. The percentage of studies using exclusively male subjects did not differ greatly from those using only females. A large number of studies used both genders. As shown in Table 2, group studies, in particular, tended to use both genders. However, group studies published in *Behavior Therapy* were the least likely to report gender.

Table 1
Information on Gender of Subjects in Behavioral Journals

Information	Journal		
	<i>Behavioral Assessment</i> Vol. 1-5	<i>Behavior Therapy</i> Vol. 1-7	<i>Behavior Therapy</i> Vol. 8-15
<i>Type of Study</i>			
Single case (or with replications)	9.35%	35.50%	22.09%
Group comparison	35.25%	41.76%	56.16%
Other (editorial, review article)	55.40%	22.74%	21.74%
<i>Was gender of subject(s) specified?</i>			
No	6.47%	9.51%	13.70%
Yes, male(s)	5.76%	27.61%	14.90%
Yes, female(s)	6.47%	16.94%	15.24%
Yes, both	35.25%	26.68%	36.13%
N/A (editorial)	46.04%	19.26%	20.03%
<i>If both genders included, were data analyzed for gender differences?</i>			
No	51.02%	80.00%	71.09%
Yes	42.86%	19.13%	26.54%
<i>Were findings of gender differences, similarities, or sex role implications discussed in discussion section (includes review articles)?</i>			
No	78.00%	87.00%	87.00%
Yes	22.00%	13.00%	13.00%
<i>If gender differences analyzed, were they discussed?</i>			
No	40.91%	43.48%	54.84%
Yes	59.09%	56.52%	41.94%

Table 2
Information for Types of Studies

	<u>Behavioral Assessment</u>		
	<u>Type of Study</u>		
Was gender specified?	Single Case	Group	Other
No	7.69%	4.08%	7.79%
Yes, male	23.08%	8.16%	1.30%
Yes, female	30.77%	8.16%	1.30%
Yes, both	38.46%	79.59%	6.49%
N/A	0	0	83.12%
	<u>Behavior Therapy (Vol. 1-7)</u>		
	<u>Type of Study</u>		
Was gender specified?	Single Case	Group	Other
No	6.54%	15.00%	4.08%
Yes, male	53.59%	18.89%	3.06%
Yes, female	24.18%	18.89%	2.04%
Yes, both	15.69%	47.22%	6.12%
N/A	0	0	84.69%
	<u>Behavior Therapy (Vol. 8-15)</u>		
	<u>Type of Study</u>		
Was gender specified?	Single Case	Group	Other
No	9.30%	26.43%	0
Yes, male	34.11%	11.89%	2.44%
Yes, female	29.46%	14.33%	1.63%
Yes, both	27.13%	53.35%	0.81%
N/A	0	0	95.12%

When both genders were used, the majority of studies failed to analyze data for sex differences. This was especially true for *Behavior Therapy* (80 and 72 percent). Even fewer studies discussed gender differences, whether they were analyzed or not. Again, *Behavioral Assessment* was somewhat better in this regard than *Behavior Therapy*. For the last item, only studies in which data were analyzed for sex differences were considered. Even after conducting the analyses, almost half of the studies failed to discuss the findings. And, once more, the trend in the *Behavior Therapy* volumes is in the opposite direction from that to be expected if authors and editors were becoming more sensitive to sex differences in research.

Discussion

These results indicate very strongly that authors of behavioral studies frequently fail to analyze data for gender differences and to discuss the implications of gender differences or similarities. They sometimes fail to specify even the gender of the subjects used. Instead of this situation improving over time, authors appear to be getting even more careless in this regard. This is in spite of an apparent increase in the number of women authors and reviewers. No attempt was made in this study to take into account gender of author, but it would be interesting to see whether male and female authors differed in this regard. Given the differences noted in the results for the two journals, one must also wonder about the impact of the editors' gender because *Behavioral Assessment* has had a woman as editor for much of its existence and *Behavior Therapy* has had only male editors. However, this difference may simply indicate greater recognition of the importance of gender differences and similarities in assessment than in treatment.

It appears that behaviorists have been overly complacent about potential sex bias in their research. To a large extent they have ignored the possibility of gender differences. We need to know how the sexes are alike as well as how they differ. Until large numbers of studies over many years analyze and report results separately for male and female subjects, we cannot assume the two groups are always alike. Discussion of the sex role implications of reported results is also necessary for explaining similarities as well as differences. Even when the sexes show similar results, those results

could have been arrived at by different paths due to different socializing factors or biological differences. The sex role implications of differing cognitive, behavioral, or symptom patterns are crucial to the leap clinicians make when generalizing experimental results to less controlled situations.

These results lead to the following recommendations:

1. Editorial policies should require that the gender of subjects be clearly specified.
2. Editorial policies should require that studies using both genders analyze results for greater differences whenever possible.

3. Whether analyzed or not, gender differences and similarities, as well as sex role implications, should be discussed.

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