

Preventive Health Practices Among Older Men and Women

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The preventive health practices of older men and women were examined from interviews with a community sample of 172 adults aged 64-96. Differences between men and women were found with only 10 of the 37 individual health practices. A mixed pattern was found in the relationship of personal and demographic characteristics, life outlook, self-health perceptions, and social network with health practices. The results suggest caution in interpreting how age and gender interact to influence the preventive health practices and health behaviors of older adults.

Sex differences have long been a fundamental interest in the study of aging and health. Rates of morbidity and disability, types of illness conditions, and use of health services have been the typical focus of various investigations of the health patterns and behaviors of men and women. Using data on the preventive health behavior and practices of a community sample of elderly, this article examines health behavior and its predictors among men and women in later life.

There has been a consistent pattern of variability between men and women in both mortality and morbidity. At any age, men have a shorter, age-specific life expectancy and higher mortality rates, and

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are at greater risk of death from all leading causes than women (Nathanson, 1984; Verbrugge, 1985). Morbidity patterns, on the other hand, present a contrast. With few exceptions, such standard indicators as illness conditions, health service utilization, and functional limitation show women with higher rates throughout their lives (Hing, Kovar, and Rice, 1983; Julius et al., 1984; Wingard, 1984). As Verbrugge (1985) has summarized: "Health statistics . . . routinely show higher morbidity from acute conditions and nonfatal chronic diseases for women and also more short-term disability, medical services use, and medical drug use by women" (p. 157).

Various explanations have been offered. Biological differences between men and women may contribute to these discrepant morbidity and mortality patterns. On psychosocial and environmental levels, sex role characteristics and variability in life-style are thought to result in different disease risks and illness experiences. The concept of risk is also central to any discussion of sex differences in health. Indeed, Verbrugge's (1985) careful review of the evidence substantiates the preeminence of acquired risks in understanding the epidemiologic outcomes of differences in life-styles between men and women. Earlier studies have suggested that there are also gender differences in health behavior that tend to favor women—that is, women take more actions on behalf of their health than do men. Mechanic and Cleary (1980) found women to be more positive than men on eight standard preventive health measures, with positive health behavior associated with better health status. While sex differences in the ability to perceive symptoms accurately, to recognize the value of various preventive health measures, and to take health care actions have not been shown, women seem to have greater health knowledge and more of a disposition toward taking actions on behalf of their health. Indeed, initial analyses of the data reported in this article found more favorable patterns of health behavior tending to occur among women (Rakowski et al., 1987).

Verbrugge (1985) has stressed that childhood socialization and adult role commitments are major determinants shaping different sex-specific perceptions of health problems and treatment decisions: "Broad cultural and social forces act to separate the sexes in their per-

sonal health ethos and their sick role propensity" (p. 167). Given the differences in morbidity patterns, one would expect to find some gender variability in health behavior, even in late life. The magnitude to expect for such differences, however, is not clear. Moreover, little is known about the extent to which such differences persist in late life, when, presumably, sex role characteristics might be less distinctive or socially reinforced and chronic illnesses are more prevalent in both women and men. In an earlier study by Mechanic (1978), for example, the differences in health behavior favoring women were seen as diminishing as health problems became more incapacitating (e.g., such as would occur in late life). Thus we approached this study of health behavior in an older population with the expectation that there would be some variability between women and men but that no major differences would be found.

Methodology

The health practices of 172 older persons were studied cross-sectionally in 1984, during the third phase of a longitudinal epidemiologic study of a random sample of community-residing elderly, from a large urban suburb of Detroit. Participants in this phase included 96 women (56%) and 76 men (44%), with average ages of 75 and 73 years, respectively. The sample was almost exclusively Caucasian and 44% Jewish, reflecting the composition of the larger community. The proportion of married (women, 34%; men, 75%) to single/widowed (women, 54%; men, 16%) was consistent with national figures. Overall, the sample was generally above national averages for the elderly in income and education levels as well as in functional health status.

Interviews were conducted either in the participant's home or at a local hospital in conjunction with a free medical examination. Although the medical exam was voluntary, 122 persons participated. Individual interview rooms were provided in the hospital to ensure privacy and to minimize differences between interview settings. The interview was approximately 90 minutes in length, including a self-administered portion with multi-item, Likert-type scales, which was

completed with interviewer supervision. The same staff members conducted all interviews, whether at the hospital or in the older person's home.

All subjects provided information about their preventive health behavior as well as various demographic and psychosocial information. The interview protocol included questions about 37 individual preventive practices (listed in Table 1), which were clustered in four general areas commonly represented in other studies: health routines, information-seeking, medical and self-examinations, and risk avoidance. The interview was intended to collect information on a much more extensive range of health practices than has been reported on an older population thus far. All health practices on a given dimension were scored using the same scale (see Rakowski et al., 1987, for complete information).

Risk avoidance. This set of 11 items represented practices likely to limit personal risk such as home and personal safety and proper use of medications. The response format for some items was a simple yes or no; other items were coded as "regularly" (risk conscious) versus "only sometimes/rarely" (less risk conscious). An average score was then calculated. The internal consistency reliability for this group of items was .44.

Daily health routines. These 12 items reflected what an individual did on a regular basis to promote good health and to prevent illness. The items included eating, drinking, smoking, and exercise practices. Although some items were easily coded yes/no, others were framed in Likert-type response formats, which were recoded so that 2 = more health-conscious life-style and 1 = less favorable life-style. The internal consistency reliability for this group of items was .53.

Medical self-examinations. These six items elicited information about the frequency of preventive health examinations conducted either by the individual or by a health professional. Preventive medical and dental checkups and blood pressure monitoring were considered "more health conscious" if done in the past year and "less health conscious" if more than a year had passed without such checkups. A two-year time span was applied to preventive eye examinations. Self-exams were coded as "regularly" versus "never" or "only sometimes." The internal consistency reliability of this group of items was .62.

Information-seeking. These 8 items reflected an individual's interest in gathering information about health from various professional sources and informal resources. This behavior group included items about the respondent's willingness to ask questions of health care providers, to discuss his or her health with family and friends, and to seek information from more general sources. A three-point response format ("rarely," "sometimes," "regularly") was used with these items, yielding an average score. A coefficient alpha was calculated for the total group, yielding an internal reliability consistency of .78.

In addition to their health practices, participants also provided extensive information about sociodemographic background, health perceptions and beliefs, future outlook and morale, and family support and social network.

Personal and demographic. This category included level of education, age, number of reported illnesses, marital status (currently married versus nonmarried), ethnic status (Jewish versus non-Jewish), income satisfaction, and availability of health (i.e., medical, dental, and eye) care services.

Health-related perceptions. Present and past self-health perceptions were assessed with a life-graph procedure used in previous studies by the authors and others. Three additional health indices were established from a factor analysis of a set of 17 items drawn from both the Rand Health Insurance Study and various investigations of the Health Belief Model. The three indices included *locus of control*—personal versus other control over health; *concern about health*—personal concern about present health conditions/status; and *interference*—an individual's resistance to letting illness interfere with daily activities.

Life outlook. Three indicators of general outlook on life were used: the Cantril-ladder rating of current quality of life, the Philadelphia Geriatric Center Morale Scale, and a 10-item index of future orientation, which was developed and tested earlier by one of the investigators.

Social network. The two most appropriate subscales of the Family Environment Scale (Expressiveness and Family Cohesion) were combined to create a single index of the quality of family relationships and environment. Information was also obtained regarding number of sur-

TABLE 1
Zero-Order Correlation Coefficients
Between Gender and Preventive Health Practices

		Preventive Health Practices	Gender
Risk Avoidance	}	Checks expiration date of medications . . . . .	.159*
		Uses old/expired medications . . . . .	.099
		Uses other persons' medications . . . . .	.107
		Checks oral care materials . . . . .	.172*
		Wears seat belts regularly . . . . .	.133
		Checks home routinely for hazards/safety . . . . .	.166*
		Uses smoke detectors	-.031
		Maintains fire extinguisher in home . . . . .	.037
		Has first aid kit in home . . . . .	.007
		Checks medicine storage	-.024
		Checks prosthetic or first aid equipment often . .	.037
Daily Health Routines	}	Seeks ways to relax/reduce tension . . . . .	.118
		Monitors weight . . . . .	.105
		Controls salt in diet . . . . .	.093
		Controls sugar in diet . . . . .	.113
		Exercises regularly	-.074
		Eats foods high in fiber . . . . .	.162*
		Takes vitamins/mineral supplements to diet . . . .	.166*
		Smokes cigarettes, pipes, cigars	-.081
		Limits red meat in diet . . . . .	.033
		Eats breakfast daily	-.239**
		Eats snacks between meals	-.089
		Gets adequate rest/sleep	-.076
Medical/Self-Examination	}	Conducts self-examination regularly . . . . .	.210**
		Conducts oral self-examination regularly . . . . .	.054
		Seeks preventive dental check-ups . . . . .	.096
		Seeks preventive health check-ups . . . . .	.059
		Seeks preventive eye care . . . . .	.050
		Monitors blood pressure . . . . .	.057

TABLE 1 Continued

Information	Reads articles about health. . . . .	.179*
	Seeks TV/radio programs about health . . . . .	.188*
Seeking	Discusses health with family	-.013
	Discusses health with friends. . . . .	.113
	Prepares in advance for health care appointments .	.256**
	Asks questions of pharmacist . . . . .	.130
	Asks questions of physician. . . . .	.053
	Asks questions of dentist.	-.014

* $p \leq .05$; ** $p \leq .01$.

viving siblings and children, frequency of talking with and visiting others, and satisfaction with how often the respondent saw family members and others.

Results

An earlier article reported the subsequent steps in the analysis and their outcomes. Factor analysis initially identified how the individual practices clustered; this was followed by a series of multiple regression analyses to determine the relationship of various psychosocial predictors to preventive health behavior. Gender was one of the few predictors of preventive health behavior patterns that emerged consistently (Rakowski et al., 1987).

The analysis reported in this article focused more specifically on the relationship of gender to the individual health practices. Table 1 lists the correlation coefficients for gender, indicating that fewer than one-third of the 37 individual practices approach significance. Although there does not seem to be any gender-related pattern when the practices are analyzed in this fashion, some of the significant correlations are in predictable directions. For example, women are more often socialized to the importance of conducting regular self-exams; they

are also more likely to take vitamins. The absence of significant gender difference in smoking behavior appears to differ from the findings of other studies. It may be that many male smokers have died by ages 65-70. A more likely explanation for this sample, however, is that the majority simply were not smokers. In an earlier interview, Julius et al. (1984) reported that a relatively small number of these respondents were smokers (20.8% of males and 19.7% of females). However, there was a significant gender difference between those who never smoked—that is, twice as many women (43.7%) as men (23.8%) had never smoked.

The significant negative correlation between gender and the practice of eating breakfast daily as well as the low and negative correlations between gender and other health routines also differ from other studies (e.g., Belloc and Breslow, 1972; Schoenborn, Danchik, and Elinson, 1981; Verbrugge, 1982). However, this may simply reflect the overall low pattern of gender/behavior correlations, with only 10 of the 37 achieving significance. These data from an older sample may also reflect a period in life when such differences in daily activities and habits between men and women are diminishing. Retirement may lead to a life-style in which daily routines are shared more closely than they were at earlier stages in life. For married couples, which included most of the men in this sample, it may be wives who are determining such daily rituals as eating patterns.

In the absence of any pattern, it was decided to examine only the five strongest positive correlations. These five health practices were then entered as dependent variables into individual regression analyses with the predictor variables. Separate analyses were conducted for men and women.

As is evident from Table 2, personal/demographic, health perceptions, life outlook, and social network factors seem to be only randomly related to the individual health practices of men and women. Among the personal and demographic factors, availability of care is significant three times. Education, age, ethnic status, and number of illnesses are each important only once, with marital status and income satisfaction having no apparent influence on health practices.

In the category of self-health perceptions, concern about one's health is the most important predictor (three of the five practices). Such concern appears to lead both men and women to seek more informa-

TABLE 2
Partial Regression Coefficients for the Predictors of Preventive Health Practices

PREDICTOR VARIABLES	PREVENTIVE HEALTH PRACTICES		PREPARES FOR DOCTOR APPOINTMENTS		CONDUCTS SELF-EXAMS		SEEKS TV/RADIO PROGRAMS ON HEALTH		READS ARTICLES ABOUT HEALTH		CHECKS ORAL HEALTH MATERIALS	
	M	F	M	F	M	F	M	F	M	F	M	F
PERSONAL/DEMOGRAPHIC:												
1. education	.252*	-.034	.021	-.055	-.142	-.108	.036	-.060	.195	.115		
2. age	.031	-.083	-.004	-.100	-.117	-.241*	-.004	-.099	-.170	.112		
3. no. illnesses	.288*	.174	-.133	.225	.121	.063	.184	.100	-.080	-.046		
4. marital status	.032	-.002	-.056	.037	-.140	.205	-.076	.070	.069	.014		
5. ethnic status	.251*	.008	-.198	.108	.025	-.131	.057	-.084	.036	-.046		
6. income satisfaction	.162	.132	-.069	-.101	-.049	-.169	.056	-.080	.123	.101		
7. availability of care	.048	-.087	-.002	.141	-.109	.052	.104	-.225**	.299**	.246*		
	R ²	.164	.055	.080	.061	.107	.164*	.030	.118	.196*	.128	
HEALTH-RELATED PERCEPTIONS:												
1. present health	-.095	-.076	.308**	-.305**	.020	-.167	.035	-.019	-.015	.031		
2. past health (2 years)	.030	.058	.107	.009	.053	.005	.096	-.016	-.023	.108		
3. locus of health control	-.049	.087	.248*	.123	.084	.136	.119	.083	.149	.033		
4. concern about health	-.025	.174	.284**	.287*	.340**	.319**	.321**	-.043	-.062	-.082		
5. illness interference	.024	-.036	-.082	-.006	-.003	-.218*	.093	.015	-.039	.208*		
	R ²	.018	.060	.181*	.191**	.091	.212**	.121	.117*	.025	.061	
LIFE OUTLOOK:												
1. quality of life	-.034	.107	-.080	-.017	-.058	-.023	-.085	.061	.033	.130		
2. morale	-.046	-.095	.145	-.051	-.027	-.252*	-.041	-.177	.186	.210*		
3. future outlook	.052	.095	.299**	.181	.151	.212*	.209	.144	.090	-.059*		
	R ²	.010	.019	.103*	.048	.027	.093*	.048	.036	.090	.050	
SOCIAL NETWORK:												
1. family environment	.053	.114	.075	.360**	.006	.167	-.005	.060	.190	.202		
2. no. siblings	-.076	-.190	.167	.057	.154	.095	.226	.091	.114	.078		
3. no. siblings	.001	.011	-.128	-.051	-.262*	.134	-.157	.204	-.112	-.148		
4. family contact satisfaction	-.072	-.234*	-.002	-.196	.197	-.083	.111	-.001	.182	-.132		
5. family contact frequency	-.027	-.109	.027	.166	.041	.165	.090	-.011	.221	.017		
	R ²	.042	.164*	.061	.155*	.091	.072	.079	.052	.223**	.078	

*p < .05; **p < .01.

tion about health/illness and to cause women to conduct self-exams. Present health status and resistance to letting illness interfere with daily activities each emerge twice, although in opposite directions. Locus of control is important only once, and past health not at all.

The life outlook and social network categories appear to be even less important. Morale and future outlook are important twice each; number of children, family environment, and satisfaction with family contact only once; and quality of life, number of siblings, and frequency of family contact apparently are not important at all.

Overall, the relationship of personal factors, self-health and life outlook perceptions, and social supports to gender differences in individual practices seems to be minimal and without any clear pattern. Moreover, even where there are associations, they are almost equally distributed between men and women. Thus gender did not appear to be an important dimension along which to examine the preventive health practices of an older sample.

Discussion

The results of this investigation of preventive health behavior, as reported here and in an earlier article (Rakowski et al., 1987), suggest that we proceed carefully in the further study of gender and health behavior. It may be that, just as men and women differ in their patterns of illness, they may also vary in the courses of action they take on behalf of their health. However, based on a fairly comprehensive range of preventive practices, that variability did not appear to be very great—at least in this limited sample of older adults. We may need to pay more attention to age and age-related life-style factors when examining health behavior and, as suggested by Julius et al. (1984), the interaction of age with gender and, possibly, ethnicity may be important.

While the health and illness contexts of men and women may still differ somewhat, it is possible that men become more preventive with age. We know from other studies that the frequency of some health practices are higher among the elderly; however, we do not know how much of this increase is accounted for by men. Verbrugge (1985) and

others have noted the importance of *risks* in understanding what differentiates women from men in their perceptions of health and illness and in the courses of action they take on behalf of their health. The age-related mortality risks faced by men may eventually influence their health behavior in late life. Whether or not they themselves experience serious illness, the mortality risk should become increasingly evident from what is happening with some of their friends and age peers and from the preponderance of widowed women in their age group.

Thus women and men may differ considerably at younger ages, with women taking more preventive health actions, just as they score higher on most of the other indicators of morbidity and health condition. In their later years, perhaps following retirement, men may begin to do more things on a daily basis to maintain their health and to prevent illness or disability, thus reducing the magnitude of earlier differences. Prohaska and colleagues (1985) report, for example, that older persons are more likely to have tried various practices designed to prevent illness, apparently motivated by perceived risk or vulnerability. Whether this represents a significant increase in activity among both men and women is difficult to clarify in the absence of longitudinal data.

A related factor is that men and women may be less sex role stereotypic in later life. In many obvious ways, their life-styles and daily routines become similar. Although such a generalization does not apply universally, there is sufficient evidence to indicate that it affects a large cross section of socioeconomic groups. The daily activities and interests of these men and women may well be much less differentiated in the later decades of life than at any other time since earliest childhood. Similarly, health care decisions and health maintenance behaviors may be less determined by sex role characteristics and more influenced, at this stage in life, by spouses and other "older" persons than by members of their own sex. For example, Harris and Guten's (1979) Cleveland survey, which sampled representatively from all adult ages, found that sex was unrelated to health and safety practices, but it was the best predictor of preventive care. Age was the better predictor of health practices, but much less so with preventive care and safety practices. The combined effects of sex and age added

little to the individual effects of each predictor. Although one can only extrapolate from such findings that there might be an important compounding of the age and sex variables, it merits further study.

There are other possible interpretations. For example, patterns of morbidity may override all other factors in predicting preventive health behavior. The preventive actions that healthy individuals practice may be quite different from what someone does in the presence of serious or disabling illness. Belloc and Breslow (1972) found that very good health was related to some health practices, while Harris and Guten (1979) reported an association between very poor health and other health practices. In this study, current self-rated health was associated with certain health practices for both men and women, which may indicate that self-perceived health status is an overriding factor in relation to other predictors of health behavior.

Conclusion

The findings from this study are quite modest and their generalizability limited. It would appear that the empirical question of whether health and illness behaviors are stable over time remains to be tested. An interesting hypothesis might focus on gender differences—for example, women may be more stable, whereas the health behavior of men may improve significantly after retirement or in the presence of chronic conditions.

Going beyond the empirical and conceptual complexities presented in the study of health behavior, we would hope that this area of research will eventually provide some direction for health intervention. To intervene effectively, we will need to know how age and health status affect lifelong behavioral patterns and if gender is in any way a factor that merits consideration in the design of health intervention strategies in late life. In any event, health practitioners should be prepared to deal with considerable diversity in the health practices of the elderly population. Age, sex, marital status, and present and past health and life-style are all potential contributors to health behavior. Precisely how these factors interact remains unknown.

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