

# Health Care Implications of Desire and Expectancy for Control in Elderly Adults

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*Two cross-sectional studies explored the relationship between age and individuals' desire for control both on a general day-to-day level and as patients in health care situations. The relationship between age and expectancies for control over health also was examined. In Study 1, questionnaire surveys completed by 246 community adults ranging in age from 19 to 77 indicated that for health-specific measures at older ages, belief in internal control and desire for control are lower, and belief in control by powerful others is higher. In contrast, no significant differences in general desires for control were found across age groups. In Study 2, expectancies and desire for control in relation to the health of 350 patients about to undergo barium enemas, chemotherapy, or surgery were measured. Older adults reported a lower desire for control of their health care and a greater belief in the ability of powerful others to control their health than did younger adults. The replication of these age differences across samples differing in several respects, including education and health status, suggests that this is a highly reliable finding.*

OLDER adults in the United States suffer more chronic illnesses and are more frequent users of the health care delivery system than other segments of the population. Both being chronically ill and being a patient are sources of stress. Perceived control and individual differences with respect to control are important mediators of responses to stress (Folkman, 1984; Mills & Krantz, 1979; Smith et al., 1984; Thompson, 1981). Langer (1983) suggested that, in general, greater perceived control may be associated with reduced stress responses. Given that aged adults tend to be more dependent on health care than younger adults (Davis, 1976), and potentially more dependent in a general sense, it is important to understand their responses to the stresses of health care in terms of control — What do they desire? What do they expect?

Although it has been suggested that aging people who experience greater feelings of control are more satisfied with their lives (Reid & Ziegler, 1981), little research has looked at individual control-related constructs as a function of age or across situations. Two studies in the literature do indicate that older adults differ in desire for control in health-related matters. Haug (1979) found persons 60 years of age and over to be more likely to accept physicians' decisions and less likely to challenge their authority. Likewise, Cassileth et al. (1980) found with cancer patients that "the older the patients, the more likely they were to prefer the older, nonparticipatory patient role" (p. 832). In their study, age was the only variable accounting for differences in preference for participation, even when education was controlled.

Studying the relationship between age and expectancy for control, Lachman (1986) found that older adults held significantly greater belief in the ability of powerful others to control their health than did young adults. However, no differences were found for internal or chance health locus of control beliefs, or for any dimensions of general locus of control.

A decreased orientation toward control of health and health care might be a consequence of adults currently in the older age group holding views that are different from those of younger persons in relation to (a) themselves — for example, that they perceive themselves to be more forgetful or feel less competent about health matters; (b) other persons — for example, that physicians and other professionals are not to be questioned; and (c) their interaction with their environment — for example, that a nonparticipatory or passive role is a desirable and appropriate response to their perceived expectations of health care professionals regarding patient behavior. Therefore, one might hypothesize that older adults would desire less control than younger adults in the health care situation and would expect that others would be better able to wield control in health matters.

Two studies are reported in this article. Using a community sample, the first study explored the relationship between chronological age and expectancy of control over health outcomes as well as desire for control on a general level and on a health-specific level (involving preferences regarding self-care, health-related information, and control in a specific health care situation). (For more information about the

constructs related to control, see Smith et al., 1984; K. A. Wallston et al., 1983; and K. A. Wallston et al., in press.) The second study was intended to examine, within a sample of physically ill patients, the relation of both chronological age and type of health problem to desire for control of health care processes, desire for health-related information, and expectancy for control of health outcomes. The sample for this study was drawn from both in-patient and out-patient populations. Both studies were cross-sectional examinations of age differences; thus, cohort or developmental effects cannot be distinguished.

The purposes of the studies reported in this article were to (a) determine whether there are age differences with regard to desire for control in general and in relation to health and health care specifically; (b) examine the relation between age and expectancies for control of health outcomes and the relation between those expectancies and desire for control; and (c) explore if the relationships among these variables remain constant across environmental situations and across individual differences in health status.

## STUDY 1

### METHODS

#### Participants

Participants were 246 adult residents of a large southeastern city (population approximately 500,000) — 79 (32.1%) males, 164 (66.7%) females, and 3 with no sex designated. Participants ranged in age from 19 to 77. The average age of the sample was 46.9 years. The mean years of education was 15.7 (range 4 to 47 years,  $SD = 3.06$ ). In addition to being a highly educated sample, the percentage of respondents employed in professional or white collar occupations also was high (73%, including 20% who were health professionals — for example, physicians, nurses).

These demographic statistics suggest that the sample chosen for this study was representative only of a relatively high socioeconomic status (SES) segment of the population, not of the area population in general. However, this high SES profile held true across all age groups sampled; that is, there were no significant differences in demographic characteristics by age group (see Table 1).

#### Control Measures

*General desire for control (GDC).* — The Desirability of Control Scale (Burger & Cooper, 1979) was used as a unidimensional measure of control motivation in general settings or situations. The scale consists of 20 items answered using a 7-point Likert format (responses range from "The statement doesn't apply to me at all" to "The statement always applies to me"). Burger and Cooper demonstrated adequate levels of internal consistency ( $\alpha = .80$ ) and stability ( $r = .75$ ) and found the measure to have discriminant validity, with the GDC being relatively independent of other measures (e.g., locus of control,  $r = .19$ , and social desirability,  $r = .11$ ). Experimentation using this scale also provides evidence of construct validity (for a review, see Burger & Cooper). For purposes of this re-

search, responses to the 20 items were summed to yield a GDC scale score having a possible range of 20 to 140.

*Preference with respect of health care in general.* — The Krantz Health Opinion Survey (KHOS) (Krantz et al., 1980) was used as a measure of health-related preferences. The KHOS consists of two subscales that purport to measure (a) preference for self-treatment and active behavioral involvement in health, measured by the 9-item behavioral involvement (K-B) subscale, and (b) preference for information about health care, measured by the 7-item health care information (K-I) subscale. According to Krantz et al., the two subscales, K-B and K-I, are only moderately correlated, and they obtain acceptable levels of internal consistency (.77, .74, and .76 for total, K-B, and K-I, respectively) and test-retest reliability (.74, .71, and .59 over a 7-week period for the total, K-B, and K-I, respectively). KHOS and its subscales have been found to be relatively independent of scales measuring other constructs (e.g., unidimensional health locus of control, repression-sensitization, social desirability, and hypochondriasis). The scales also have been found to be valid as discriminators of groups who differ on control-taking with respect to their health care. For the purpose of this research, the KHOS items were responded to using a 6-point Likert format (with responses to each item ranging from 1 = "strongly disagree" to 6 = "strongly agree"), rather than the dichotomous response option suggested by the scale developers. The Likert format was used so that the KHOS items could be interspersed with the Multidimensional Health Locus of Control (MHLC) items that will be described later (order of items was held constant for all participants).

Reliability of KHOS in this format remains high. Alphas range from .73 to .83 (Smith et al., 1984). Both subscales in this format also discriminated among groups known to differ in desire for control (Smith et al., 1984), although K-B did show considerable overlap with the powerful others externality measure on the MHLC scales (K. A. Wallston et al.,

Table 1. Demographic Characteristics for Study 1 by Age Groups

Variables	Age groups			Total (n = 241)
	20 to 39 (n = 75)	40 to 59 (n = 112)	60 and over (n = 54)	
Mean education (years)	15.84	15.78	15.37	15.71
Sex				
Male	22	35	22	79
(%)	(28)	(44)	(28)	
Female	54	78	32	164
(%)	(33)	(48)	(20)	
Occupation				
White collar	70	101	48	219
(%)	(32)	(46)	(22)	
Blue collar	5	9	5	19
(%)	(26)	(48)	(26)	
Health care professional				
Yes	64	92	39	195
(%)	(33)	(47)	(20)	
No	11	18	11	40
(%)	(28)	(45)	(28)	

1983). The K-I and K-B items were summed separately, and the ranges of possible scores for the subscales were 7 to 42 and 9 to 54, respectively.

*Situation-specific Desire for Control of Health Care (DCON).* — DCON is a 7-item, 4-point Likert format scale designed to assess a person's preference for control in specific health care situations. Respondents are asked to respond with reference to what they want in a specified health care situation. In Study 1, the referent was "as a patient facing a life-threatening illness." This situation was chosen because one of the original intentions of data collection for this study was to validate the DCON scale in relation to known groups who had made control-related decisions regarding the dying process. The original 14-item DCON scale demonstrated high internal consistency ( $\alpha = .74$  to  $.81$ ), correlated significantly with other preferences for control scales — especially preference for health information: with K-I,  $r = .47$  to  $.62$  ( $M = .52$ ); with K-B,  $r = .18$  to  $.46$  ( $M = .28$ ); with GDC,  $r = .13$  to  $.30$  ( $M = .16$ ) — and was able to discriminate among groups who were actually facing the referent situation — described in the instructions (as opposed to hypothetically facing the situation) (Smith et al., 1984). The scale was shortened to 7 items for later use with clinical populations. The shortened scale obtained similar results in reanalyses of the Smith et al. data and adequate internal consistency in the current study ( $\alpha = .839$ ).

*Expectancy of control.* — The Multidimensional Health Locus of Control (MHLC) Scales (K. A. Wallston et al., 1978), Form B, were used as generalized health-related measures of expectancy of control. A 6-point Likert format is used for the 18-item scale. The MHLC Scales consist of three statistically independent measures of health locus of control beliefs: Internality (IHLC), chance externality (CHLC), and powerful others externality (PHLC). The MHLC Scales have adequate internal consistency and test-retest reliability and are particularly valid as discriminators of groups differing on health status indicators. (See B. S. Wallston & K. A. Wallston, 1982; K. A. Wallston & B. S. Wallston, 1981 for reviews.)

#### Procedure

Participants were told that the purpose of this research was to assess opinions about health care in various settings. They were asked to fill out a questionnaire survey concerning their

beliefs, experiences, desires, and expectations around a number of issues, primarily health-related ones as well as general background information. Approximately one-half of the participants ( $n = 124$ ) responded to a mailed questionnaire packet sent to persons whose names were furnished by an area community organization providing community education about death and dying as well as volunteer support services for dying persons and their families. The other half ( $n = 122$ ) were recruited from local community settings, such as Sunday church classes from two Presbyterian churches and waiting areas in the university hospital. These latter respondents were personally handed questionnaires and asked to complete them and return them to investigators present at the sites. All responses were made anonymously. Data for this study were collected as part of a larger investigation that sought to measure desire for control in health care settings (see Smith et al., 1984, for more details).

#### RESULTS

Analyses of variance (ANOVAs) were first run with Sex  $\times$  Age (with three age groups: 20 to 39, 40 to 59, and 60 and over) as the independent variables and expectancy and desire for control measures as the dependent variables. The age groupings were chosen to parallel Cassileth et al. (1980). With the exception of GDC, where males desired more control in general, there were no sex effects. Because there were no significant interactions with sex, further analyses were done using only the age variable.

Education was used as a covariate because of its significant correlation with the various control variables (see Table 2 for correlations of education and the control constructs used in Study 1 and Study 2). Using one-way analyses of covariance (ANCOVA) with education as the covariate, there were significant effects of age for IHLC, PHLC, DCON, K-I, and K-B. For CHLC and GDC, there were no significant main effects for age. Education was a significant covariate in all analyses except for IHLC; people with more education expected and desired more control (see Table 3 for adjusted means and  $F$  values).

Expectancy for internal control over health was lower at older ages, whereas expectancy for control over health by powerful others was higher. Both desire for health care information and behavioral involvement were lower at older ages, as was the situation-specific measure, DCON. There were no significant differences in general desire for control

Table 2. Correlations of Education With the Control Variables

Measures	Study 2			
	Study 1	Barium enema (BE) patients	Cancer chemotherapy (CA) patients	Major surgery (OR) patients
Internal health locus of control scale (IHLC)	-.09			
Chance external health locus of control scale (CHLC)	-.20***			
Powerful others external health locus of control scale (PHLC)	-.27***	-.29***	-.31**	-.12
General desirability of control scale (GDC)	.24***			
Preference for information about health subscale (K-I)	.17**	.36***	.36***	.28***
Preference for behavioral involvement subscale (K-B)	.37***			
Desire for control for health care scale (DCON)	.27***	.10	.01	.21*

\* $p < .01$ , \*\* $p < .005$ , \*\*\* $p < .001$ .

Table 3. Adjusted Means for Expectancy and Desire Scores for Study 1 by Age Groups

Measures	Age groups			F	p	eta <sup>2</sup>
	20 to 39 (n = 76)	40 to 59 (n = 113)	60 and over (n = 57)			
Internal health locus of control (IHLC)	25.79 <sub>a</sub>	24.42 <sub>a</sub>	23.10 <sub>a</sub>	4.42	< .01	.04
Chance external health locus of control (CHLC)	16.17	15.68	15.46	0.35	NS	.03
Powerful others external health locus of control (PHLC)	18.38 <sub>a</sub>	18.56 <sub>a</sub>	21.99 <sub>b</sub>	9.19	< .001	.07
General desirability of control (GDC)	103.28	104.65	101.68	0.86	NS	.01
Preference for information about health (K-I)	31.08 <sub>a</sub>	28.80 <sub>a</sub>	24.48 <sub>b</sub>	13.09	< .001	.10
Preference for behavioral involvement (K-B)	34.58 <sub>a</sub>	33.05 <sub>a</sub>	28.24 <sub>b</sub>	9.20	< .001	.07
Desire for control of health care (DCON)	24.58 <sub>a</sub>	23.86 <sub>a</sub>	22.76 <sub>b</sub>	4.74	< .01	.04

Note. Means are adjusted for education level. Within measures, means with a subscript in common do not differ at at least the .05 level using the Newman-Keuls procedure. *F*s are for age main effect from the ANCOVA: *df* = 2,234.

or in the expectancy that health is controlled by chance across the age groupings.

To test the extent to which differences in desire for control over health care (K-I and K-B) are affected by differences in expectancy (IHLC and PHLC), ANCOVAs were run with each expectancy covaried along with education. Significant main effects for age remained for K-B with IHLC covaried,  $F(2,233) = 6.03, p < .003$ ; for K-I with both IHLC,  $F(2,233) = 10.54, p < .001$ , and PHLC covaried,  $F(2,223) = 7.62, p < .001$ ; and for DCON with IHLC covaried,  $F(2,233) = 3.20, p < .04$ . Because K-B and PHLC are highly related variables (cf. K. A. Wallston et al., 1983), it is not surprising that the main effect for age with K-B as the dependent variable was no longer significant,  $F(2,223) = 2.81, p < .06$ , when PHLC was covaried. In addition, the age main effect with PHLC as the dependent variable was no longer significant when K-B was covaried,  $F(2,233) = 2.80, p < .06$ . When PHLC was covaried, the age effect for DCON also was weakened,  $F(2,223) = 2.70, p < .07$ . However, when DCON was covaried in the analysis of PHLC, the age effect remained,  $F(2,233) = 7.06, p < .001$ . With these two exceptions, desire for control of health care appeared to differ by age independent of differences in expectancy of control over health. When the age effect is dependent upon expectancies, the expectancy is belief in the potential of powerful others to control health outcome (e.g., Lachman, 1986), and the affected control preferences are related to direct control behaviors in health care rather than information-seeking.

Because older adults are often in poorer health than other adults, it is reasonable that health status could account for differences in control beliefs and desires. There was no direct measure of health status in this study, but participants were asked if they currently had, or if they had ever had, a life-threatening illness. Data were analyzed in  $3 \times 3$  ANOVAs, using whether respondents now had, previously had had, or never had had a life-threatening illness as three levels of one factor and age group as the second factor. There were no Age  $\times$  Illness interactions. This issue was tested further in the second study using patient populations.

## STUDY 2

### METHODS

#### Participants

Participants were drawn from three patient groups: (a)

ambulatory patients ( $n = 144$ ) who were scheduled to undergo barium enema (BE) x-rays at either the clinics of a university medical center or at a group medical practice affiliated with a local community hospital; (b) cancer patients (CA) who were receiving chemotherapy in either the clinic or hospital of a university medical center ( $n = 72$ ); and (c) patients scheduled for major surgery (OR) at the same university hospital ( $n = 134$ ). Each group was representative of varying levels of health: symptomatic but not requiring hospitalization (BE patients), ill with a serious life-threatening disease (CA patients), and ill and requiring surgery but not facing a diagnosis likely to be life-threatening (OR patients). The participants in this study were drawn from three field experiments studying the effects of choice on patient outcomes (Smith & King, 1986; B. S. Wallston et al., 1987).

BE patients were scheduled for this procedure due to abdominal pain (42.9%), bleeding (19.6%), constipation (13.4%), and diarrhea (7.1%). CA patients were receiving a wide variety of chemotherapy protocols for widely differing cancer diagnoses; they were receiving chemotherapy either for the first time or the first time in more than 1 year. OR patients were scheduled for the following operations: gynecological surgery (20%), cholecystectomy (14%), laparotomy (15%), peripheral vascular surgery (5%), laminectomy (39%), and kidney donor (7%).

Participants ranged in age from 18 to 91 years ( $M = 48.8$ ) (see Table 4). Mean years of education was 12.8. Younger adults had more years of education than older adults; this was especially true for BE and CA patients (see Table 4). Therefore, education was used as a covariate in the subsequent analyses. There were 124 (36%) identified as males and 225 (64%) as females.

#### Procedure

All participants were recruited into their respective experiments and administered the battery of questionnaires. They were informed that we were studying the responses of patients to the procedures they were about to undergo. Although study participants were patients in three field experiments, no experimental interventions were conducted prior to the completion of the questionnaire battery for this study.

#### Control Measures

In addition to basic demographic information, DCON

K-I, and PHLC measures were obtained for all participants. (See Study 1 for descriptions of measures.) These scales only were used rather than the larger battery used in Study 1 for two reasons: (a) because these participants were hospitalized patients, we could not ask them to spend a long time completing questionnaires, and (b) we had specific research hypotheses concerning interactions of these variables with our experimental interventions in the studies from which data are drawn.

The reference to which participants were asked to respond on the DCON scale was specific to the health care problem of the subsample. BE patients were asked to state what they wanted "as a patient getting ready for a barium enema." CA patients responded in relation to their desires as "a patient in this clinic." OR patients were asked their preferences as "a patient during this hospitalization." The internal consistency of the scale across the 3 subsamples was adequate ( $\alpha$ s = .740, .511, and .701 for the BE, CA, and OR subsamples, respectively).

## RESULTS

As in Study 1, 20 to 39, 40 to 59, and 60 and over were the age groupings used. ANOVAs with sex and age as the independent variables were run for all control measures. There were no significant main effects for sex or Age  $\times$  Sex interactions for DCON or K-I. However, for PHLC there was a significant Age  $\times$  Sex interaction,  $F(2,337) = 4.21$ ,  $p < .02$ . Because of this, sex was added as a third factor in the analysis of PHLC.

Major analyses for the study were conducted using ANCOVA in a 3  $\times$  3 design for DCON and K-I, with age as one factor, type of health problem as the second factor, and education as the covariate. PHLC was analyzed in a three-factor ANCOVA design with age, health problem, and sex as the factors. Education was again a significant covariate for all dependent variables in the same direction as in Study 1. There were significant main effects for age and for health problems for DCON and K-I and a significant age effect for PHLC. For K-I, the main effect for age,  $F(2,332) = 19.14$ , was greater than the main effect for health problem,  $F(2,332) = 6.13$ . For DCON, the order was reversed; the health problem effect,  $F(2,332) = 19.19$ , was greater than the age effect,  $F(2,332) = 4.53$ . This makes sense given that DCON is a situation-specific measure and that situations were quite different for patients with each of the three health

problems. Because there were no significant Age  $\times$  Health Problem interactions, differences among groups with different health problems will not be discussed further (see Table 5). The main effect for age for PHLC was moderated by a Sex  $\times$  Age interaction.

Table 4. Mean Education and Sex Distributions for Study 2 by Age and Patient Groups

Variables	Age groups			Total
	20 to 39	40 to 59	60 and over	
Barium enema patients				
Mean education (years)	13.67	11.49	10.85	11.84
(n)	(40)	(41)	(60)	(141)
Sex				
Male	12	18	16	46
(%)	(26)	(39)	(35)	
Female	29	24	45	98
(%)	(30)	(24)	(46)	
Cancer chemotherapy patients				
Mean education (years)	13.33	11.93	10.12	11.65
(n)	(18)	(28)	(25)	(71)
Sex				
Male	7	14	5	26
(%)	(27)	(54)	(19)	
Female	11	14	20	45
(%)	(24)	(31)	(44)	
Surgical patients				
Mean education (years)	12.93	12.93	12.20	12.85
(n)	(58)	(58)	(15)	(131)
Sex				
Male	20	22	10	52
(%)	(39)	(42)	(19)	
Female	38	38	6	82
(%)	(46)	(46)	(8)	
All patients				
Mean education (years)	13.25	12.24	10.87	12.8
(n)	(116)	(127)	(100)	(343)
Sex				
Male	39	54	31	124
(%)	(31)	(44)	(25)	
Female	78	76	71	225
(%)	(35)	(34)	(31)	

Table 5. Adjusted Means for Expectancy and Desire Scores for Study 2 by Age Groups

Measures	Age groups			F	df	p	eta <sup>2</sup>
	20 to 39 (n = 76)	40 to 59 (n = 113)	60 and over (n = 57)				
Powerful others external health locus of control (PHLC) <sup>a</sup>	22.46 <sub>c</sub>	24.41 <sub>d</sub>	26.30 <sub>e</sub>	15.03	2,325	< .001	.08
Desire for control of health care (DCON) <sup>b</sup>	32.44 <sub>c</sub>	30.70 <sub>d</sub>	30.11 <sub>d</sub>	4.53	2,332	< .01	.07
Preference for information about health (K-I)	27.16 <sub>c</sub>	23.97 <sub>d</sub>	20.78 <sub>e</sub>	19.14	2,332	< .001	.16

Note. Means are adjusted for education. Within measures, means with subscripts in common do not differ at the .01 level using the Newman-Keuls procedure. *F*s are for age main effect from the appropriate ANCOVA.

<sup>a</sup>PHLC was analyzed in a three-factor ANCOVA in which there was a significant Age  $\times$  Sex interaction. The statistics presented are for the main effect for age.

<sup>b</sup>In this study, DCON consisted of 7 items responded to on a 6-point Likert scale.

Middle-aged and older adults desired less situation-specific control than younger adults. Increasing age appeared to be associated with decreasing desire for health-related information. In general, expectancy that health outcomes are under the control of powerful others was greater for middle-aged adults than younger persons and even greater for older adults. The interaction occurs because the increase in PHLC with age happens at middle age for women ( $M = 25.4$ ) compared to younger women ( $M = 21.5$ ) but at older age for men ( $M = 27.1$ ) compared to middle age ( $M = 23.0$ ).

As in Study 1, to test whether differences in desire for control were associated with differences in expectancy for control of health, ANCOVAs were run with an additional covariate, PHLC. PHLC was a significant covariate only for K-I. Significant age main effects remained for both DCON,  $F(2,329) = 4.02, p < .02$ , and K-I,  $F(2,330) = 14.78, p < .001$ . Examination of the adjusted means revealed that lower desire for control is associated with older ages regardless of expectancy about powerful others' ability to control health.

#### DISCUSSION

Our findings suggest that the desire for control construct is a complex one, varying according to the situation in question and seemingly affected by many variables. Similar to Cassileth et al. (1980) and Haug (1979), our findings suggest that, independent of education and regardless of type of health problem or health status, older persons desire less control of their health and less health-related information than younger adults. Furthermore, older ages are associated with greater belief that powerful others are better able to control health outcomes (cf. Lachman, 1986). Among generally healthy older persons, there is less belief that they control their own health. One might presume, therefore, that a greater belief in others' ability to control one's health could account for diminished desire for information and control. However, this does not appear to be the case, as significant age differences remain even when controlling for such beliefs.

In general, these differences are most pronounced in comparisons of persons below age 39 and those above age 60. Those in the 40-to-59 age range rank either between the younger and older groups or are similar to the older groups. Whether this reflects a developmental trend in preferences and expectancies or a cohort effect cannot be determined by these data. Both effects can be explained. Disengagement theory (Cummings & Henry, 1961) would suggest that, in addition to health-related desires, general desire for control also should be reduced among older adults. Similarly, Rodin and Langer (1980) suggested that aging in our society — where aging is negatively labelled — may lead to changes in self-concept and to loss of control in general. Our studies and Lachman's (1986) do not support this. However, in a replication of Study 1 (Woodward & Wallston, 1987) using a more heterogeneous sample with respect to socioeconomic status, lower general desire for control was found among older adults. Thus, there is some support for disengagement theory among subsets of the aged population.

Instead, we found that the lower preference for control among older persons is specific to health care. This may be related to increasing numbers of physical complaints and illnesses attributed to aging, which generally is perceived as

an uncontrollable process (Banziger & Drevenstedt, 1984); or, the lowered desire for control may be associated with the socialization process regarding health care professionals, especially physicians, and with repeated experiences with a health care system that allows little personal control. Until recently, most U.S. citizens were taught that physicians were so competent that seeking control of the health care process was inappropriate behavior. However, health care consumerism, the self-care movement, and institutional changes, such as insurance requirements for second opinions, have begun to change attitudes and beliefs about health care. These changes may have had their greatest effect upon younger adults whose earlier health care experiences were shaped by these changes.

There is great heterogeneity within older age groups. However, across samples differing in socioeconomic and health status, we found the same pattern of control expectancies and desires. Nevertheless, to assume that older patients never want control is an error. After all, the effects we found were fairly small in magnitude. In general, however, older patients' greater belief in powerful others' ability to control their health may make them more likely to believe in the efficacy of their physician. At the same time, their lower desire for active participation in the health care process may lead to decreased question-asking, more passivity in general, and decreased likelihood for self-care activities. These desires and expectancies may necessitate health care professionals' taking special actions that (a) assess the appropriateness of medical regimens prior to their prescription and (b) assure that older adults have adequate information on which to make decisions and adhere to the prescribed regimens. We must develop strategies/interventions for making the health care process more acceptable and successful for that portion of our population that is most likely to be dependent upon it.

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