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Age, Gender and Ethnicity as Predictors of Communication Style Preference for Physical Therapists

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The literature on patient rehabilitation frequently cites patient motivation as important in adjustment to disability and to the return to normal daily life. Patient motivation is seen as a determinant of disability and rehabilitation outcome (Maclean, Pound, Wolfe, & Rudd, 2002). Integrally related to patient motivation is the patient's self-concept and sense of efficacy in regaining skills and knowledge leading to a return to normal daily activities (Elliott, Uswatte, Lewis, & Palmatier, 2000). Motivation in rehabilitation tasks was formerly seen as a somewhat universal process rather than an individualized, phenomenon (Mueller, 1962; Nagler, 1950; Nemiah, 1957); however, current thinking places patient motivation more precisely in the personal and individual arenas particularly with regard to patient preferences about caregiver behavior. Rather than a process that follows specific patterns of recovery and psychosocial adjustment as in most previous models of rehabilitation (Kohut, 1977), recently researchers have found that individualized patient care and goal planning result in better adjustment and better transition, as well as in the maintenance of goals attained (Robbins, Lee, & Wan, 1994; Smith & Robbins, 1988). Because patient motivation and rehabilitation outcomes are associated with the rehabilitation environment (King, 1989), including caregiver communication style, this study addresses patients' perceptions of the therapist's communication style in terms of collaboration, directiveness, and patient-oriented behaviors. The current study looks particularly at age, gender, and ethnicity as they relate to patients communication style preference in physical therapists.

Patient Motivation in Rehabilitation and Recovery

Even short-term rehabilitation has been studied in terms of the impact of patient motivation (Maclean et al, 2002). Motivation is known to be affected by personality factors, clinical treatment format, family and support factors, and the rehabilitation environment generally including the communication style of the

health care provider. Cultural factors are implicated as well, and are thought to be related to the clinician's behavior (Clark, 1978). Such behaviors as labeling the patient, discounting patient preferences, having low expectations, and having different expectations from those of the patient inhibit the client-therapist relationship. Using patients' norms or perceptions has been seen as useful in establishing rapport and in enlisting patient cooperation with the treatment plan (Powell, Diller, and Grynbaum, 1976). For example, cultural norms might include the legitimization of dependency due to a disability, or gender-specific patterns of assertiveness or reticence in participating in one's own treatment plan.

Therapists vary in the degree to which they are directive or non-directive with rehab patients, yet current thinking suggests that communication style should be adapted to patient's preferences and perceptions. Setting relevant goals is also a consideration within the therapy milieu, and this study addresses the relevancy of goal-setting by examining the ways that the patient perceives the therapist's communication style and how those perceptions relate to gender, ethnicity, and age.

The process of adjustment to disability or to the need for rehabilitation is now studied in terms of the patient's sense of self, independence, and self-sufficiency. Personal characteristics and personal preferences are related to one's sense of self. Researchers have shown that the greater the sense of independence during recovery, the less distress experienced by the patient (Elliott et al, 2000). While not always approaching pathological levels, the degree of anxiety is greater in patients in rehabilitation than in the general population (van der Schaff, 2002). Taken as a whole these findings indicate that a patient's preference for communication style on the part of health care providers may be an important factor in determining patient motivation and adjustment capabilities.

Ethnicity, Age, and Gender

Studies have shown that therapists experience differing motivations and attitudes from their patients, even when of the same ethnicity and gender (Wilson, Alston, & Mitchell, 2002). Minorities have a greater rate of disability than do those of the dominant culture in the U.S. (Bowe, 1984; Hayes-Bautista, 1992), largely due to several environmental and socio-cultural factors. Therapists have been shown to exhibit racial bias toward African-Americans (Butcher & Scofield, 1984), and members of this minority group are less likely to have health insurance and are more likely to live under the federal poverty level, factors that can preclude the seeking of general health care or follow-up care. They are also more likely to be employed in dangerous jobs, and to have less education than Caucasian Americans. Additionally, minority patients have been more frequently misdiagnosed and less accurately assessed for health needs

(Maclean, et al, 2002). Since culture is largely made up of a set of perceptions and assumptions it is reasonable to assume that culture may affect patient preferences for communication style among therapists. In fact writers on health communication have observed that culture may play a major role in forming patient perceptions and preference about health care specifically. (Beck, 2001)

Although not specifically studied in regard to rehabilitation patients, the age of health care patients generally is known to be a factor in therapy outcomes and in general health outcomes (Birren & Schaie, 1996; Butler, 1994). Patients' preferences are frequently discounted or largely ignored in health settings (Abeles, 1997; Davis-Berman & Robinson, 1997). Although geriatric education has been instrumental in reducing discrimination toward older patients (Bravard, 2001), age bias continues to be a pervasive and destructive issue for older individuals in the health care system. Age and economic status are often intertwined (Binstock, 1994; Riley, 1994). Age may affect therapists style by affecting the expectations and perceptions that therapists, or health caregivers in general, have about patients.(Nussbaum et. al., 1989) (Solomon, 1996)

No significant differences have been found with regard to gender and rehabilitation outcomes (Moore, Feist-Price, & Alston, 2002; Wilson, Alston, & Mitchell, 2002). However, it is a well-documented that gender is an important factor in perception and preference formation, (Rothwell, 1992) and caregivers have been shown to be affected in terms of both their practices and their assumptions by gender.(Starr, 1982)

There has been virtually no research specifically directed toward the psychological constructs related to rehabilitation adjustment (Elliott et al), and very few studies of ethnicity, gender, or age in relation to patient motivation, adjustment or preferences are found in the literature. The authors of this study hypothesize a relationship between age, gender and ethnicity, and perceptions of the rehabilitation process, as studies have shown that cultural factors do influence rehabilitation outcomes (Maclean, et al, 2002). This study further expands the concept that personal and individual aspects of patient motivation impact rehabilitation outcomes, specifically those related to the patient's expectations of the rehabilitation process, and the psychological factors that may be associated with patient expectations, such as anxiety and communication apprehension. Because therapists prefer motivated patients (Maclean & Pound, 1999), it is important that therapists assess the level of motivation, and the factors from which the patient's motivation is derived. Specifically, the following research question will be tested.

RQ1. What relationship exists between age, gender, and ethnicity and the patients preference for communication style among physical therapists?

Method

To measure the Dependant variable of preference for communication style a questionnaire was created by the authors which measured the degree to which the patient preferred the therapist use a directive or collaborative style of communication. (see appendix) While no alternative instrument was available to establish criterion validity the instrument showed high face validity and a test-retest reliability index of .78 using a Pearson Product moment correlation. These questionnaires were placed in a packet that was distributed by reception personnel at each clinic. (see appendix)

Patients at three different physical rehabilitation clinics and the rehabilitation clinic of a major hospital in the area were surveyed. Each patient was asked to fill out a scale on preference for communication style among therapists as well as the report data on sex, ethnicity, and age. Patients completed the questionnaire packets while waiting for appointments with their therapist or immediately following an appointment. The data were gathered over a three-month period. A total of 63 questionnaire packets were returned in usable condition.

Of the 63 packets collected 32, or 50.8 per cent, were male and 31, or 49.2 percent, were female. 57, or 90.5 percent were Anglo-Americans while only 6 or 9.5 percent were African-American. No other ethnic groups were represented in the sample. The average age of the participants was 62.5 years with a standard deviation of 10.72. The minimum age was 26 and a maximum age was 85.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SEX	63	1	2	1.49	.504
ETH	63	1	3	2.81	.592
AGE	62	26	85	62.50	10.727
SCORE	63	10	53	40.54	7.392
Valid N (listwise)	62				

SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	50.8	50.8	50.8
	2	31	49.2	49.2	100.0
	Total	63	100.0	100.0	

ETH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	9.5	9.5	9.5
	3	57	90.5	90.5	100.0
	Total	63	100.0	100.0	

To test the research question a Pearson product moment correlation was performed between the variables of age and score on the perception questionnaire. Because data on gender and an ethnicity were gathered in nominal form it was deemed more appropriate to analyze their relationship to style preference using a Discriminate Analysis technique. Each variable of gender and ethnicity was submitted to a separate analysis.

Results

The Pearson product moment correlation failed to show a significant relationship between age and preference for communication style. A correlation coefficient of $-.131$ was calculated. This failed to even approach significance.

Correlations

		AGE	SCORE
AGE	Pearson Correlation	1	-.131
	Sig. (2-tailed)	.	.312
	N	62	62
SCORE	Pearson Correlation	-.131	1
	Sig. (2-tailed)	.312	.
	N	62	63

The Discriminate analysis showed little more relationship with the variables of gender and an ethnicity. For gender a Discriminate function produced a canonical correlation of .040. This also failed to reach significance.

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.002 ^a	100.0	100.0	.040

^a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.998	.098	1	.755

The analysis for ethnicity also failed the show a significant or meaningful relationship with style preference. A canonical correlation coefficient of .120 was calculated.

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.015 ^a	100.0	100.0	.120

a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.986	.874	1	.350

Discussion

While no relationship between age and communication style preference was found, the sample needs to be carefully scrutinized before concluding that no relationship exists. While ages of the participants range from 26 to 85 years, the average was more than 60 years and the standard deviation of 10.7 indicates that very few young people were a part of the sample. While these data show no relationship between age and communication style preference, this sample needs to be compared to a sample of the younger adults before a final conclusion can be reached. It may be that younger patients would experience a more profound difference in their style preference as compared to older patients. It may also be that patients in a younger group exhibit a more marked difference in style preference than older patients and that this relationship is not linear but marked by a statistically sudden change in preference at an undetermined age range.

Data on ethnicity also showed no significant results. However, this finding is very low in validity because of the heavily skewed nature of the sample. Less than 10 percent of the sample was African-American while the rest were all Anglo-Americans. A more extensive sample with African-Americans more completely represented, and with representation of other ethnic groups as well, needs to be collected before valid conclusions can be reached. The findings on gender, although consistent with previous research, present quite another set of problems. The finding of no significant relationship between gender and preference for communication style among physical therapists must be taken seriously. The sample obtained adequately represented both genders in nearly

equal proportions. Apparently there is no relationship between gender and the preference for communication style among physical therapists. This finding flies in the face of expectations but must be allowed to stand until a larger sample or better data is obtained. Further research needs to be done in terms of measuring the Dependant variable of style preference.

As a post hoc search for possible interaction effects, a two factor Analysis of Variance was conducted using gender and ethnicity as major factors and style preference as the Dependant variable. This analysis showed no significant interaction between the factors of gender and an ethnicity.

While this simple is limited in a number of ways, these findings do indicate that therapists should not be too quick to make assumptions about age, gender or ethnicity as they reflect patient preferences for communication style among therapists. What may be more predictive of preference for communication style is a host of personality characteristics such as locus of control, Communication Apprehension, generalized anxiety and situational stressors. These factors are currently being investigated by the researchers.

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APPENDIX