

## **Orientations Toward Disability: Differences over the lifecourse**

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This article presents the results of a study of differences in orientation toward disability over the lifecourse. The study was based on an instrument developed by the authors, the Questionnaire on Disability Identity and Opportunity (QDIO). This instrument measures two dimensions of disability: participation and orientation. Orientation, in turn, consists of the dimensions of identity, role, and model. In an earlier study, the QDIO was validated with a convenience sample of 388 people with disabilities in the United States. Using the same data, this article focuses on the association between disability orientation and ageing. Among other findings, we found that age was negatively associated with “disability pride” and positively associated with exclusion. However, the interpretation of these findings is limited by the fact that age was strongly associated with age at disability onset in this sample. The discussion speculates about why older adults are less likely to have been exposed to the “social model” of disability and suggests the value of these findings for interventions with older populations.

**Keywords:** activism; ageing; disability identity; medical model; social inclusion; social model

### **Introduction**

Disability increases with age. Although most older adults with disabilities have acquired their disabilities later in life, an increasing proportion of the ageing population includes individuals with early-onset disabilities (Verbrugge, 2002). Minkler and Fadem (2002) argue that paradigms of “successful ageing” in gerontology tend to view disability negatively and need to be broadened to include those with pre-existing disabilities who are “ageing well”. However, little research has focused on the correlates of “ageing well” among people with disabilities over the lifecourse. Moreover, as Putnam (2002) suggests, newer, social models of disability need to be integrated into theories of ageing. In this article, we look at the relation between age and disability model, along with the related concepts of social inclusion, identity, and activism.

A number of researchers have examined self-perceptions of health status and psychological well-being among the elderly. In general, objective health condition has been found not to be the only factor associated with subjective views. For example, Greenfield and Marks (2007) found that, among adults with functional limitations, continuous participation in recreational and religious groups was associated with higher levels of psychological well-being. Umstatt, McAuley, Moti, and Rosengren (2007) found in a sample of older women that self-efficacy mediated the association between decreased physical function and pessimism. Similarly, Schneider et al. (2004) found within an elderly sample that subjective

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evaluation of health correlated highly with overall subjective well-being but not with objective health-related variables. Thus, self-perceptions are important in understanding the effects of disability.

A few studies have looked specifically at self-identification as disabled. Iezzoni, McCarthy, Davis, and Siebens (2000) found that although most people with major mobility difficulties perceived themselves as disabled, almost 30% did not. Kelley-Moore, Schumacher, Kahana, and Kahana (2006) found among older people that self-identification as disabled was associated with changes in social networks and other variables such as cessation of driving and receipt of home healthcare, and not simply with the acquisition of functional limitations. Similarly, Langlois et al. (1996) found that 61% of older adults who had difficulty with or could not perform at least one activity of daily living did not consider themselves to be disabled.

Self-identification as disabled is only one dimension of a concept to be described below that we call “disability orientation”. Other aspects of disability orientation, such as adherence to a social or medical model and involvement in disability rights activism, have not been studied at all in relation to age. Although much has been written about the growth of a disability rights perspective in recent years (e.g., Charlton, 1998; Shapiro, 1994), research on the existence of this perspective in various segments of the population is largely absent. In this article, we explore various dimensions of the concept of disability orientation and present the findings from a study in which we looked at the association between these dimensions and age.

A proposed typology of orientations toward disability that is based on opportunity structure theory in sociology serves as the foundation for this study (Darling, 2003). In order to determine whether this theoretical, literature-based typology could be tested empirically, the authors developed a tool to evaluate orientation toward disability and conducted an exploratory study involving a convenience sample of people with disabilities. Those study findings suggested the existence of a number of primary orientations toward disability (Seligman & Darling, 2007). In this article, we present further analyses of these data, focusing on the relation between age and disability orientation.

### **Background: The concept of disability orientation**

The concept that guides the present research is orientation toward disability. In this article, orientation toward disability is conceptualised to include: disability identity, adherence to either a medical or social model of disability, and level of disability rights activism. Thus, disability orientation includes both cognitive/evaluative (self/identity) and behavioural (role-playing) variables, along with beliefs about whether disability is a personal or a social problem.

Orientation toward disability is related to, but broader than, the concept of disability identity that has driven some previous research in this area (e.g., Gill, 1997; Putnam, 2005). The concept of identity or self suggests a person’s definition of himself or herself and usually includes both cognitive (“I am a person with a disability”) and evaluative (“I am proud to be a person with a disability”) components. Most research on disability identity has included some associated behavioural (role-playing) variables in addition to descriptions of the content of the self-concept of people with disabilities. For example, Anspach (1979) and Stryker (2000) have used the concept of identity politics to suggest the interaction between a person’s identity and activism to promote positive social change for individuals who share that identity. Thus, activism can be regarded as one of the behavioural outcomes that may result from a particular identity.

Another variable that appears to be associated with disability identity is model or perspective. In the past, most orientations toward disability were based on a medical model, which viewed disability as an undesirable, stigmatised status (e.g., Goffman, 1963). The predominant goal for people with disabilities was to achieve “normalisation” or a lifestyle as close as possible to that of people without disabilities. The commonly accepted mode for achieving normalisation was rehabilitation. More recently, a social or sociological model, which shifts the focus from the individual to the larger society, has become popular (e.g., Oliver, 1996). The social model suggests that, unlike people who are ill, individuals with disabilities do not need to adopt the norms of the non-disabled majority or need to “get well”. Rather, society needs to accommodate their differences.

In some writings (e.g., Hahn & Belt, 2004; Linton, 1998), adherence to a social model has been linked to activism. Certainly, the belief that disability is a social, rather than a personal, problem is compatible with activities intended to create social change. However, not all people with disabilities share a common perspective, and whether most individuals with disabilities today have rejected the medical model in favour of a social one is an empirical question. Because research and practice need to address diverse segments of this population, the inclusion of models that reflect the entire range of disability orientations is important.

During the past several decades, largely through the efforts of the Disability Rights Movement (e.g., Charlton, 1998; Shapiro, 1994; Stroman, 2003), the identity of at least some individuals with disabilities has changed, and a stigma-based identity has been replaced by “disability pride” (e.g., Linton, 1998). With its genesis in the Disability Rights Movement, the newer identity has been rooted in the social model and often has been accompanied by activism. Proponents of the newer identity/model reject the norms of the larger society that label disabilities as failings and persons with disabilities as morally inferior to “normals”. Swain and French (2000) described an “affirmation model” in which disability is viewed as part of a positive social identity rather than as a personal tragedy. They argued that disability is increasingly being recognised as a normal form of human diversity rather than as a condition that needs to be changed or eliminated.

Darling (2003) argued that a typology of current disability orientations would need to include both the normalisation and affirmation models, along with any other orientations that were found to exist. A literature review in that article suggested that orientations toward disability reflect differential access to opportunities to achieve either (or both) normalisation or (and) the alternative, affirmative definitions promoted through disability culture and disability rights movements. This theoretical, literature-based article posited a need for empirical research to determine whether and to what extent differing orientations toward disability actually existed in the population.

The relation between disability orientation and age has been virtually unexplored in the empirical literature. One study (Hahn & Belt, 2004) looked at one aspect of disability orientation, identity, in relation to age of disability onset in a sample of disability activists. They found that personal affirmation of disability was stronger among those with early-onset disability than among those with adult onset. However, they did not report any findings relating these variables to the age of their respondents. Our study adds to the literature by introducing an empirical measure of disability orientation and considering this measure in relation to age.

## **Method**

We began our attempt to study the existence of differing orientations toward disability with qualitative interviews with a small US sample ( $n = 10$ ) of people with disabilities. Based on

the earlier literature review (reported in Darling, 2003) and the results of these interviews, we developed the Questionnaire on Disability Identity and Opportunity (QDIO) that was designed to measure: *participation* in mainstream society and the disability subculture; and *disability orientation*. *Participation* implies that persons not only have access to activities, but engage in those activities, and was operationalised by questions such as, "About how often do you engage in social activities outside of your home, like visiting friends or eating out in restaurants?". *Disability orientation* reflects *identity* (pride vs. stigma/shame); *model* (social vs. personal); and *role* (activism vs. passivity). *Identity* was operationalised through various scale items, including the following, among others: "I don't think of myself as a person with a disability"; "My disability is an important part of who I am"; "I am proud of my disability"; and "I try to hide my disability whenever I can". As these examples suggest, items reflected both disability pride and shame. *Model* was operationalised through scale items such as the following: "All buildings should be accessible to people with disabilities"; "I feel sorry for people with disabilities"; and "Doctors and other medical professionals know what is best for people with disabilities". As these examples demonstrate, some items suggested adherence to a social model, whereas others suggested adherence to a personal or medical model. Finally, *activism* was operationalised primarily through the following question: "Have you ever participated in a demonstration, written a letter to your congressional representative, or engaged in another activity to try to increase the opportunities available to people with disabilities?" (Clearly, this question would need to be modified if the instrument was administered to a non-US population.) Passivity was suggested by lack of activism as well as by scale items such as, "The most important thing for people with disabilities is to learn to accept what they cannot change".

The first 30 items were rated using a five-point Likert scale where 1 = strongly disagree and 5 = strongly agree. Because the "direction" of the items was intentionally varied to avoid response patterning, in some cases a person with a particular attitude might agree with one item and disagree with another item that evaluates the same attitude. Therefore, these items were re-coded for the purpose of analyses.

In the second part of the QDIO, respondents' demographic characteristics (i.e., age, gender, ethnicity, education level, employment status, marital status, size of community lived in) were elicited, and their disability status and activity level (i.e., types of impairments, time with disability, level of assistance required, frequency of engagement in social activities outside the home, participation in specific mainstream activities and activities associated with disability-related organisations) were elicited. Specific response options were provided.

The QDIO was distributed anonymously to a US sample with the assistance of four Centers for Independent Living, a social club and two assistance programmes for people with disabilities, a rehabilitation facility, a posting on a disability website, and an Internet listserv with subscribers with disabilities. The total of usable forms returned was 388. The sample included respondents from six states that represented all regions of the United States. The first 30 QDIO items were analysed using exploratory factor analysis; cross-tabulations between all of the items and age were computed. The results of these analyses, as well as a multiple analysis of variance and multiple regression analyses, are described and reported in the next section.

## Results

The 388 respondents in our sample ranged in age from young adults to those over 65 years old, although younger adults predominated. The 18–35 years age group comprised 56% of the sample, the 36–64 years age group comprised 35% of the sample, and the 65 years and

over age group comprised 9% of the sample. Median and modal ages were in the 18–35 years age group. The respondents reported that they were from large, urban areas, as well as from small towns and rural areas; however, most reported that they were from small towns and small or medium-sized cities. A little more than one-half (54.3%) of the respondents were men. The most frequently reported impairment was mobility-related (46.3%). Other impairments reported by respondents included vision (19.5%), hearing (16.5%), speech (16.2%), cognitive (25.7%), and cosmetic (4.9%) impairments. Obviously, some respondents reported having more than one impairment. Like many samples of people with disabilities, these respondents generally had low incomes (68.6% had household incomes under US\$25,000 a year) and were underemployed (only 20% reported that they worked full-time or were retired). The large majority of the sample (83.6%) identified their ethnicity as European American; 8.3% identified themselves as African American, and the rest identified with other racial backgrounds. Few (17.5%) of the respondents were college (university) graduates; the rest had less education. A large number (44.3%) reported that they had had their disabilities since birth. An additional 24.3% had had their disabilities for less than five years, and the remaining 31.4% fell somewhere in between.

Analysis of the data suggests that respondents had widely diverging orientations toward disability. The 30-item scale was analysed using exploratory factor analysis to determine whether the items could be meaningfully grouped into relevant subscales. Examination of the scree plot for the exploratory factor analysis of the 30-item QDIO indicated that a four-factor solution was appropriate. Because we had reason to suspect that the four factors would be correlated, we ran the exploratory factor analysis using oblique rotation as well as varimax (orthogonal) rotation. The results were virtually identical with regard to which items loaded on the four factors. The results from the varimax rotation are presented in Table 1. The four factors that emerged were: Disability Pride; Exclusion + Dissatisfaction; Social Model; and Personal/Medical Model. Items that loaded with each of the four factors are indicated in bold type. Based on item analysis, those items that had low factor loadings (less than 0.30 on all four factors) were dropped. Other items were dropped if they did not lower Cronbach's alpha coefficients (Preacher & MacCallum, 2003). A total of seven items were dropped (i.e., "I don't think of myself as a disabled person"; "I would rather associate with disabled people than people without disabilities"; "Most of my friends have disabilities"; "The reason most people with disabilities are unemployed is that they are not able to do the jobs that are available"; "I have a lot in common with other people with disabilities"; "People with disabilities can never fit into 'normal' society"; and "The people I care about always include me in activities I am able to enjoy").

Reliability analyses revealed Cronbach's alpha levels (see Table 1) that were respectable for three of the subscales (Disability Pride = 0.78; Exclusion/Dissatisfaction = 0.73; Social Model = 0.72), and marginally acceptable for the Personal/Medical Model subscale (alpha = 0.63) (DeVellis, 1991). Although the alpha coefficients were not as high as we had hoped, we judged them to be acceptable given the relatively small number of items in the subscales and the fact that we used self-report administration of the survey, which may have presented challenges for some of the participants. Although the survey was designed for self-report, we suspect, based on anecdotal evidence, that a small number of the participants from the rehabilitation facility that contributed to the sample may have had low levels of literacy. This may have resulted in some misunderstanding of the survey items.

In addition to the factor analysis, we cross-tabulated each of the items on the QDIO with age. Table 2 presents the measures of statistical association between all 30 Likert items and age using Somer's *D* (since the items and age are measured at the ordinal level), along with behavioural characteristic items that were associated with age (based on a statistically

Table 1. Summary of exploratory factor analysis results for QDIO using varimax rotation ( $n = 388$ ).

	Alpha	Factor 1	Factor 2	Factor 3	Factor 4
Disability Pride	0.78				
I am a better person because of my disability		<b>0.531</b>	0.160	-0.129	0.016
My disability is an important part of who I am		<b>0.613</b>	0.131	-0.091	-0.072
I am proud of my disability		<b>0.635</b>	0.033	-0.194	-0.103
My disability enriches my life		<b>0.706</b>	0.059	-0.209	-0.069
Exclusion/Dissatisfaction	0.73				
My disability limits my social life		-0.014	0.194	<b>0.677</b>	0.010
My disability keeps me from working		-0.043	0.170	<b>0.594</b>	0.133
In general, I am satisfied with the quality of my life (reversed)		-0.486	0.064	<b>0.496</b>	-0.178
I often am excluded from activities because of my disability		-0.073	0.408	<b>0.556</b>	-0.066
Social Model	0.72				
Lack of accessibility and discrimination by employers are the main reasons why disabled people are unemployed		0.069	<b>0.590</b>	-0.017	0.019
It isn't easy for people with disabilities to be treated as "normal"		-0.031	<b>0.430</b>	0.163	0.118
People with disabilities need to fight for their rights more than non-disabled people do		0.038	<b>0.555</b>	0.097	0.092
The biggest problem faced by people with disabilities is the attitudes of other people		0.082	<b>0.596</b>	0.127	0.036
All buildings should be accessible to people with disabilities		0.095	<b>0.537</b>	-0.064	0.093
I am familiar with the Americans with Disabilities Act (ADA) and think it is a good law		0.198	<b>0.398</b>	-0.043	-0.039
I am familiar with the Disability Rights Movement and support its goals		0.228	<b>0.427</b>	-0.025	-0.021
Personal/Medical Model	0.63				
If I had a choice, I would prefer not to have a disability		-0.269	0.213	0.120	<b>0.346</b>
I feel sorry for people with disabilities		-0.093	-0.060	0.179	<b>0.421</b>
I wish that someone would find a cure for my disability		-0.219	0.311	0.319	<b>0.416</b>
Doctors and other medical professionals know what is best for people with disabilities		0.175	0.002	0.058	<b>0.474</b>
People with disabilities need to learn to adjust to living in a world in which most people are not disabled		0.024	0.124	0.067	<b>0.353</b>
I try to hide my disability whenever I can		-0.042	-0.072	0.351	<b>0.406</b>
People should try to overcome their disabilities		-0.100	0.067	-0.109	<b>0.398</b>
The most important thing for people with disabilities is to learn to accept what they cannot change		0.135	0.044	-0.120	<b>0.410</b>
Eigenvalues		4.11	3.91	2.12	1.74
% of variance		13.7	13.0	7.07	5.78

Note: Items that loaded with each of the four factors are indicated in bold.

significant Somer's *D* value). Although most of the bivariate associations with age were weak to moderate, some interesting patterns were evident. Specifically, the results suggest that older people were more likely to espouse a medical model (e.g., desiring a cure, believing that "doctors know best"), to feel excluded from social participation (e.g., disability keeps them from working and limits their social life), and to reject an identity of Disability Pride (although they were more likely to think of themselves as disabled, they did not view this identity in positive terms). In addition, life satisfaction decreased with age. Disability rights activism showed a curvilinear relationship with age. Specifically, adults aged 36–64 years were the most activist, with more than one-half having engaged in some form of disability rights activism – younger adults and those over 65 years were less activist. Interestingly, age was negatively associated with length of time with a disability. That is, young adults in our sample were more likely to have been disabled from birth and to have had their disability for a longer period of time.

Table 2. Bivariate relationships (Somer's *D*) between age and QDIO scale and non-scale items (*n* = 388).

	Somer's <i>D</i>
<b>Disability Pride</b>	
I am a better person because of my disability	-0.16**
My disability is an important part of who I am	-0.20***
I am proud of my disability	-0.29***
My disability enriches my life	-0.16**
<b>Exclusion/Dissatisfaction</b>	
My disability limits my social life	0.44***
My disability keeps me from working	0.37***
In general, I am satisfied with the quality of my life (reversed)	-0.34***
I often am excluded from activities because of my disability	0.33***
<b>Social Model</b>	
Lack of accessibility and discrimination by employers are the main reasons why disabled people are unemployed	0.06
It isn't easy for people with disabilities to be treated as "normal"	-0.03
People with disabilities need to fight for their rights more than non-disabled people do	0.09
The biggest problem faced by people with disabilities is the attitudes of other people	0.04
All buildings should be accessible to people with disabilities	0.04
I am familiar with the Americans with Disabilities Act (ADA) and think it is a good law	0.14**
I am familiar with the Disability Rights Movement and support its goals	0.07
<b>Personal/Medical Model</b>	
If I had a choice, I would prefer not to have a disability	0.23***
I feel sorry for people with disabilities	-0.09
I wish that someone would find a cure for my disability	0.23***
Doctors and other medical professionals know what is best for people with disabilities	0.13*
People with disabilities need to learn to adjust to living in a world in which most people are not disabled	0.11*
I try to hide my disability whenever I can	0.10

Table 2. (Continued).

	Somer's <i>D</i>
People should try to overcome their disabilities	0.06
The most important thing for people with disabilities is to learn to accept what they cannot change	0.08
Other Scale Items	
I don't think of myself as a disabled person	-0.22***
I would rather associate with disabled people than people without disabilities	0.07
Most of my friends have disabilities	-0.31***
The reason most people with disabilities are unemployed is that they are not able to do the jobs that are available	0.05
I have a lot in common with other people with disabilities	0.06
People with disabilities can never fit into "normal" society	-0.004
The people I care about always include me in activities I am able to enjoy	0.14**
Demographic and Behavioural Characteristic Items	
Mobility impairments	0.44***
Time with disability	-0.35***
Need for assistance with Activities of Daily Living	0.38***
Social participation	-0.31***
Disability rights activism (not linear)	-0.13**
Use of e-mail/internet	-0.18***
Read disability magazines (not linear)	-0.18***

Note: \* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$ .

We computed mean subscale scores for the four factors – Disability pride (four items), Exclusion/dissatisfaction (four items), Social model (seven items), and Personal/medical model (eight items) – with high scores reflecting agreement with each of these factors (see Table 1 for specific items used in each subscale). As shown in Table 3, we then performed a multiple analysis of variance on the four factors with age as the independent variable. The results revealed significant relationships ( $p < 0.000$ ) between age and Factor 1 (disability pride) and between age and Factor 2 (exclusion). Younger respondents were more likely to

Table 3. Means of the QDIO factors by age categories.

	Age category			Type III Sum of Squares	<i>F</i>	Significance
	18–35 years ( <i>n</i> = 217)	36–64 years ( <i>n</i> = 136)	65+ years ( <i>n</i> = 35)			
Pride	3.14 <sub>a</sub>	2.73 <sub>b</sub>	2.32 <sub>c</sub>	25.54	13.06	0.000
Exclusion	2.30 <sub>a</sub>	3.28 <sub>b</sub>	3.45 <sub>b</sub>	95.42	57.69	0.000
Social	3.78 <sub>a</sub>	3.92 <sub>a</sub>	3.96 <sub>a</sub>	2.07	2.47	0.086
Personal/Medical	3.42 <sub>a</sub>	3.36 <sub>a</sub>	3.65 <sub>a</sub>	1.98	2.21	0.111

Note: Higher mean scores reflect greater agreement with QDIO items. For example, young adults self-report higher levels of disability pride and lower levels of exclusion. Means in the same row that do not share subscripts differ at  $p < 0.05$ .



agree with the items associated with disability pride and to have higher average scores on disability pride. Older respondents, on the other hand, were more likely to agree with the items associated with exclusion, and to report perceiving higher average levels of exclusion/dissatisfaction.

We also conducted ordinary least squares multiple regression analyses, by regressing each of the four factors – pride, exclusion, social model, and medical model – on age, marital status, employment status, ethnicity, gender, size of community, educational level, whether the respondent had a mobility-related disability, length of time with a disability, level of assistance required with activities of daily living, level of social activity, and level of activism. The results are shown in Table 4. Despite the relatively small sample size ( $n = 388$ ), removing non-significant predictors did not affect the results.

Age was a significant predictor of level of disability pride. Middle-aged respondents had a significantly lower level of disability pride than young adults, as did older respondents. Other significant predictors of disability pride were race, work status, community size, length of time with disability, level of assistance required, and level of activism. Non-European Americans demonstrated lower levels of disability pride than European Americans, as did respondents from smaller towns and rural areas. Respondents who had been disabled longer displayed higher levels of pride, as did respondents who required less assistance with activities of daily living. The strongest predictor of pride was level of activism; respondents with lower levels of activism or with no activism had the lowest level of disability pride. The overall model was statistically significant and had an explained variance of 22%.

With regard to exclusion, age was again a significant predictor. Middle-aged respondents reported significantly greater levels of feeling excluded than young adults. Older respondents also felt more excluded than young respondents, although the difference was not as great as it was for middle-aged respondents and was not statistically significant. A strong predictor of exclusion was employment status, with retired respondents indicating significantly greater feelings of exclusion than students. In addition, respondents who were unemployed or were homemakers had significantly greater feelings of exclusion than students. Respondents who were employed either full-time or part-time reported the least amount of exclusion. Separated, widowed, and divorced survey participants reported greater feelings of exclusion than never-married respondents. Participants who required more assistance with activities of daily living, and who reported lower levels of social activities, also demonstrated greater levels of exclusion. The overall model for exclusion was quite robust, with an explained variance of 45%.

Age was not a significant predictor of the social model subscale. Only two predictors were statistically significant. Respondents with a mobility impairment reported a greater level of adherence to a social model, as did respondents with higher levels of activism. The overall model was statistically significant, although only 11% of the variance in the social factor was explained by the model. Age was also not a significant predictor of the medical factor. There were six statistically significant predictors, and the explained variance was 14%. Retired or male or unmarried respondents or those who reported fewer social activities and less activism were more likely to report higher levels of agreement with the medical model.

## Discussion

Older people appeared to be less likely to adopt newer views such as the social model and disability pride. Stigma and the medical model have been the normative views of disability for many years, and older individuals were likely to have been socialised to adhere to these

Table 4. Ordinary least squares regressions for the four disability factors ( $n = 388$ ).

Independent variable	EQ 1: Pride		EQ 2: Exclusion		EQ 3: Social		EQ 4: Medical	
	<i>b</i>	Beta	<i>b</i>	Beta	<i>b</i>	Beta	<i>b</i>	Beta
<b>Demographics</b>								
Age								
18–35 years	–	–	–	–	–	–	–	–
36–64 years	–0.46*	–0.22	0.46**	0.21	–0.02	–0.01	0.01	0.004
65 years and over	–0.69*	–0.17	0.23	0.05	0.17	0.06	0.06	0.02
Non-white (binary)	–0.25*	–0.09	–0.03	–0.01	–0.02	–0.01	0.11	0.06
Level of education (ordinal)	0.05	0.07	–0.05	–0.06	0.002	0.01	–0.03	–0.05
Employment status								
Student	–	–	–	–	–	–	–	–
Work full-time or part-time	0.26*	0.10	–0.24*	–0.09	–0.01	–0.01	–0.02	–0.01
Retired	0.36	0.12	0.40*	0.13	–0.04	–0.02	0.26*	0.12
Unemployed or homemaker	0.24	0.09	0.33**	0.13	0.02	0.01	0.03	0.02
Respondent is female (binary)	–0.04	–0.02	–0.16*	–0.08	0.09	0.07	–0.12*	–0.09
Marital status								
Never married	–	–	–	–	–	–	–	–
Married	–0.04	–0.02	–0.14	–0.06	–0.06	–0.04	–0.22*	–0.13
Separated, widowed, or divorced	–0.11	–0.04	0.40**	0.15	0.12	0.07	0.05	0.03
Size of community lived in (ordinal)	–0.11**	–0.14	–0.05	–0.06	–0.03	–0.06	0.06*	0.11
Disability status and activity								
Mobility disability (binary)	–0.11	–0.05	0.12	0.06	0.16*	0.13	–0.13	–0.09
Length of time with disability (ordinal)	0.13**	0.17	–0.05	–0.07	0.01	0.03	–0.03	–0.06
Level of assistance required (ordinal)	0.18*	0.12	–0.27**	–0.18	–0.08	–0.08	–0.05	–0.05
Social activities outside home (ordinal)	–0.04	–0.04	0.26**	0.25	–0.05	0.09	0.07*	0.10
Level of activism	–0.19**	–0.21	0.03	0.03	–0.11**	–0.19	0.12**	0.20
R-square	0.22**		0.45**		0.11**		0.14**	

Note: \* $p < 0.05$  (one-tailed); \*\* $p < 0.01$  (one-tailed). *b* refers to unstandardised regression coefficient; Beta refers to standardised regression coefficient. High mean scores on the factors represent higher levels of disability pride, feelings of exclusion, agreement with the social model, and agreement with the medical model.

views. As our data suggest, they also were less likely than younger people to use email or the Internet, often the primary means of disseminating the social model.

Older individuals also had the most significant disabilities of any age group, and most had acquired their disabilities later in life. Perhaps they were too involved in issues of rehabilitation or coping to engage in activism. Activism, after all, is time-consuming and requires at least a minimal level of energy that is less likely to exist among older people, even those without significant disabilities. Further, limited exposure to the Internet, which has become an important organising tool, could explain lack of activism, as well as lack of exposure to the social model in general. The relative lack of activism among the youngest members of the sample is perhaps better explained by the apathy among the young toward political activism in general that has been reported elsewhere in the literature (e.g., Henn, Weinstein, & Forrest, 2005).

Age is associated with length of time with disability, and members of the youngest age group in our sample typically had had their disabilities since birth. In the oldest age group, on the other hand, disabilities were likely to have been recently acquired. In an earlier analysis of these data (Seligman & Darling, 2007), we found that the primary determinant of positive disability identity seemed to be whether or not one was born with a disability, a finding also reported by Hahn and Belt (2004). This finding highlights a significant limitation on the interpretation of our results. Because of the association in our sample between age and age at disability onset, we cannot determine which of these variables accounts for the age-related associations we found. People with lifelong disabilities may learn from an early age to feel comfortable with their identity, whereas those who acquire disabilities later in life may have already been socialised into the societal norm of stigma, and this, in turn, may result in a lack of disability pride. Further research is needed to determine the true effect of age alone.

Not surprisingly, older respondents reported lower levels of social participation and life satisfaction than younger ones. As the data showed, younger respondents were more likely than older respondents to have friends with disabilities, perhaps encouraging a view that disability is normative. Older respondents, on the other hand, may continue to define their status in relation to a non-disabled reference group, a group that they were a part of until the onset of their disabilities. This, in turn, may result in lowered self-esteem and greater feelings of exclusion. Because life satisfaction is generally a desired outcome, an understanding of the factors involved in reduced satisfaction among older people with disabilities could be valuable in the designing of intervention programmes for this population.

These findings should be interpreted with caution with regard to non-US populations. The QDIO was validated with a US sample and includes some items that are specific to the United States. However, most of the items refer to universal life experiences and could be used with other populations. The remaining items could be easily modified to refer to conditions in other countries. For example, in the item measuring activism, “congressional representative” could be readily replaced by a term appropriate to other governmental structures, and the “Americans with Disabilities Act” could be replaced by other, country-specific legislation as appropriate.

## **Conclusion**

The relation between disability orientation and age seems to involve all of the postulated elements: identity, access, model, and role. Model and role seem to be associated in expected ways, whereas identity may depend more on whether or not one’s disability is acquired after birth than on model. Access appears to be associated with the presence or

absence of activism in more complex ways. The oldest individuals in this sample did not engage in activism even though they lacked access to opportunities for inclusion in mainstream society; they also appeared to lack access to opportunities for learning about activism.

Clearly, further research is needed to establish the accuracy of the explanations offered here. Our convenience sample was limited in size and was not representative of the US population as a whole, nor of populations in other countries. In particular, younger people were over-represented in the sample in comparison with their numbers among people with disabilities in the general population. In addition, the association we found between age and age at disability onset points to a need for further research with a sample that is large and diverse enough to control for age at onset. Also, although somewhat representative geographically, our sample was not drawn randomly from the US population.

Qualitative studies are needed as well to substantiate our assumptions about the direction of effects. We assume that age is an independent variable that determines identity, model, and activism. However, other factors may serve as mediating variables, and future research should explore the processes through which people come to adopt various orientations toward disability and how these orientations change over time in relation to the presence or absence of various interactional opportunities. Increased knowledge about the career paths of individuals with disabilities would be valuable for practitioners and policy-makers in their work to increase opportunities for this population.

These findings provide a limited test of the existence and prevalence of the social model of disability and show that both the personal/medical and the social models are present to varying degrees in various segments of the population of people with disabilities in the United States today. Clearly, age and life stage appear to represent important determinants of adherence to different models, identities, and roles.

Finally, the findings suggest that the QDIO is a valuable tool that could be used in a variety of contexts to measure orientations toward disability. The instrument appears to validly and reliably measure the various components of disability orientation in various age groups and to point to differences by age.

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