

Participation and Satisfaction with Life in Young Adults with Cerebral Palsy: the Role of Personal Factors and Environmental Barriers

Susan E. Sienko, Ph.D. ^{1,2}

¹Shriners Hospitals for Children Portland, Portland OR, ²Portland State University

Background/Objectives

As adolescents with Cerebral Palsy (CP) transition into adulthood they begin to take steps toward independence, assuming self-sufficiency in daily activities and adult social roles. The accomplishment of daily activities and participation in normative adult social roles are purported to be strong determinants of well-being; however personal and environmental factors may impact the ability of the young adults with CP to fully participate.

The purpose of this study was to determine the impact of personal and environmental factors on participation and satisfaction with life in young adults with CP.

Participants

- 55 Young Adults with CP who self-reported
- Between the ages of 18-30 years (mean=24.23 years)

| Demographics | | | |
|--------------|--------------|--------------|--------------|
| GMFCS Level | I | II | III, IV, V |
| N | 24 | 16 | 15 |
| Age (years) | 23.18 (3.24) | 25.43 (3.29) | 24.61 (4.21) |
| Gender | M=9 F=15 | M=4 F=12 | M=8 F=7 |
| Ethnicity | NH=22 H=2 | NH=16 | NH=15 |

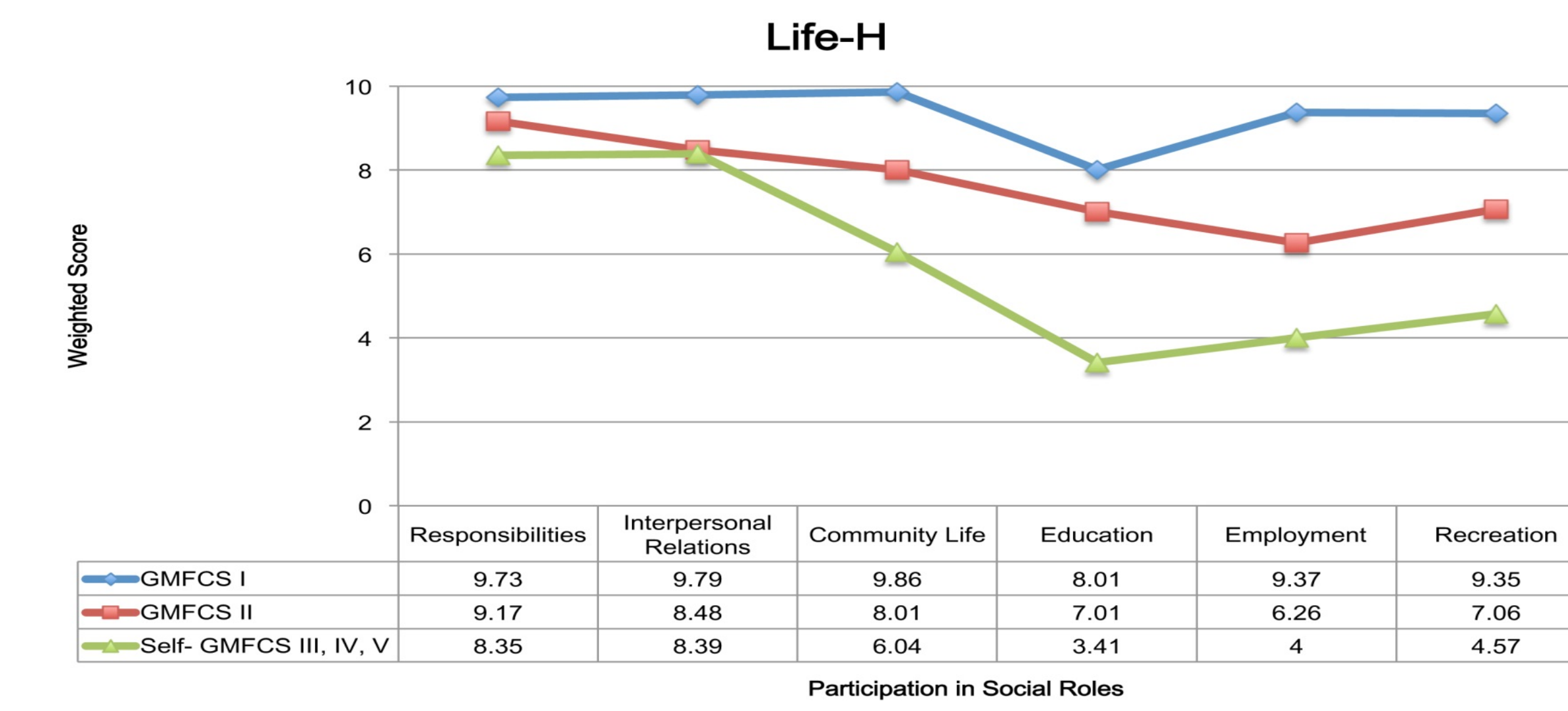
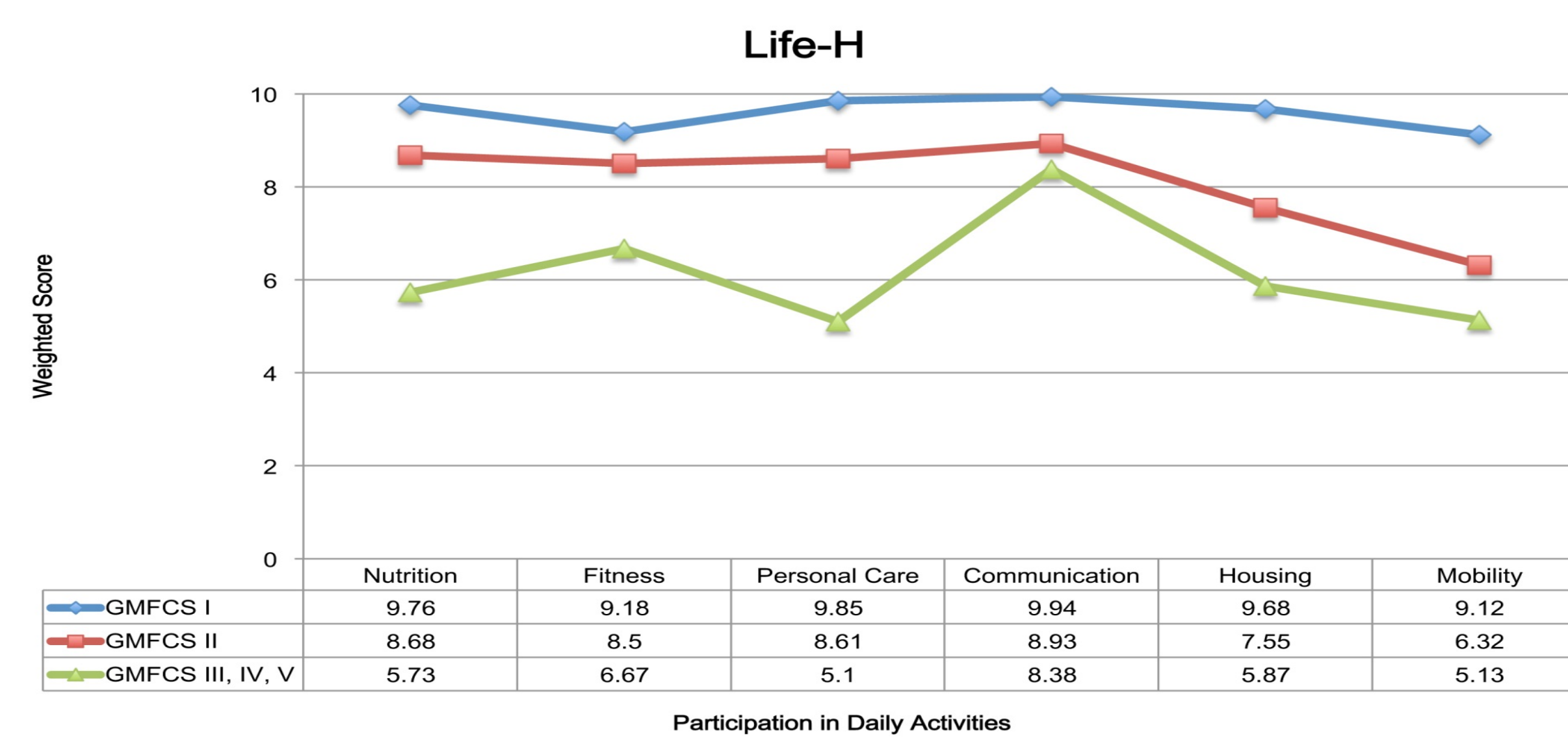
Design/Methods

- Prospective cross-sectional mailed survey
- Recruited from SHC-Portland and CDCR
- Survey Assessments
 - GMFCS-E & R
 - Craig Hospital Inventory of Environmental Factors (CHIEF)
 - Assessment of Life Habits (Life-H)
 - Satisfaction with Life (Behavioral Risk Factor Surveillance System-BRFSS)
- Adult Social Roles

Categories for adult social roles

| Category | Category |
|-----------------------------|--|
| Residential Status | Dependent- Living in the parental home or adult care center |
| | Independent- Living independently alone or with a spouse, partner of friend |
| Financial Independence | Income between \$0-10,000 |
| | Income between \$10,000-34,999 |
| | Income greater than 35,000 |
| Education/Employment Status | Not working or going to school |
| | Volunteering or working in a sheltered workshop |
| | Student only (high school or post secondary) |
| | Working (full time or part time) or working part time and pursuing secondary education |

Results

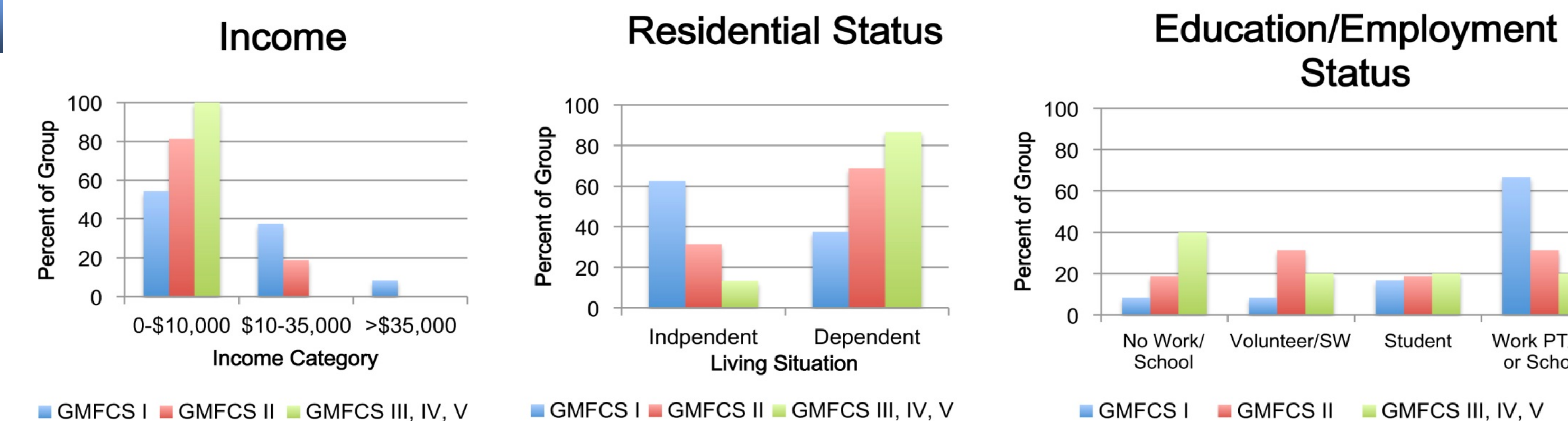


Participation in Daily Activities and Social Roles

- Young adults in GMFCS I demonstrated greater accomplishment scores than young adults in GMFCS level II for the daily activities of housing and mobility and the social roles of community life, employment and recreation
- Young adults in GMFCS level I demonstrated greater accomplishment in all life habits, except responsibilities compared to young adults in GMFCS levels III, IV, and V

Acquisition of Adult Social Roles

- Significant differences were found by functional level for the acquisition of adult social roles
- Young adults in GMFCS level I were more often employed, had a higher income and lived independently than those in GMFCS level II followed by those in GMFCS level III, IV, and V



Barriers to Participation

- Significant differences were found by functional level for the summation of all environmental barriers (CHIEF total)
- Young adults in GMFCS level I and II experienced fewer environmental barriers than individuals in GMFCS levels III, IV and V
- Significant differences were found among functional levels for all CHIEF subscales except work/school

| CHIEF-Environmental Barriers | | | | |
|------------------------------|-----------------|------------------|--------------------------|--------------|
| Subscales | GMFCS I N=24 | GMFCS II N=16 | GMFCS III, IV, V N=15 | Significance |
| Physical/ Structural | .37 (.57) | .60 (.66) | 1.78 (1.61) | p<.001 |
| Services/ Assistance | .24 (.35) | .79 (.59) | 1.13 (1.34) | p<.001 |
| Policies | .09 (.24) | .61 (.76) | 2.17 (2.16) | p<.001 |
| Work/School | .35 (.69) | .33 (.50) | .55 (1.0) | p=.639 |
| Attitudes/Support | .24 (.52) | .33 (.42) | .88 (.86) | p<.01 |
| CHIEF Total | .26 (.28) | .57 (.47) | 1.33 (1.08) | p<.001 |
| Life-H Domains | | | | |
| Daily Activities | 9.59 (.53) | 8.10 (1.37) | 6.15 (1.58) | p<.001 |
| Social Roles | 9.35 (1.03) | 7.67 (1.74) | 5.79 (1.68) | p<.001 |

Factors Associated with Satisfaction with Life

- 79% of variance in **Daily Activities** was accounted for by functional level and the environmental barriers of physical/structural, attitudes/support and services/assistance
- 65% of variance in **Social Roles** was accounted for by functional level and all CHIEF barrier subscales
- Environmental barriers and participation in daily activities and social roles did **NOT** explain the variance in Satisfaction with Life

Discussion/Conclusions

- While motor impairment is a key predictor of participation; the addition of environmental barriers impacted participation in daily activities and social roles
- Ambulatory difficulties for young adults in GMFCS level II impact ability to move around home and community, while the use of an assistive device decreases the ability to participate in activities related to meals, personal care, housing and mobility for young adults in GMFCS level III, IV and V
- All groups demonstrated lower scores for participation in social roles than daily activities
- Provision of adaptive equipment and training in addition to the use of adaptive technology will provide the skills, resources and adaptation of the environment needed to participate
- Acquiring the necessary skills to assume adult social roles requires a coordinated effort by both rehabilitation and school systems in order to plan and prepare the young adult for independent living, education and employment
- Facilitating education and employment will enhance independence, increase participation and potentially increase satisfaction with life of young adults with CP

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