

Research Paper

Psychosocial Correlates of Every Day Functional Competence in the Elderly

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ABSTRACT

Deterioration of functional competence is one of the markers of old age. Low functional competence imposes not only restrictions in mobility and increases dependency during old age which in turn leads to low self-esteem and depression. This study is an attempt to assess the psychosocial correlates of functional competence in a sample of 300 elderly living in semi urban areas of Chittoor District. Patterns of functional competence were measured through ADL, IADL, PBADL and SPFC. Findings reveal that functional competence correlated with physical and mental activities, social supports, health practices, age, gender and economic groups etc. The outcome of the study highlights the need for rehabilitation services for the need based vulnerable elderly.

Keywords: Health, Functional Competence, Elderly, Psychosocial Correlates.

Health of elderly is a product of numerous factors and elderly persons are susceptible to greater health risks. Towards ensuring good health, the individual himself should possess knowledge, the right attitude and the practice of healthy behavior that help in improving functional competence during later years of life. Thus, good health behavior i.e., awareness of disease and functional competence and appropriate health practices to keep oneself fit will reduce the health risks and promote self-efficacy feelings towards independent functioning.

Review on correlates of health and wellbeing indicates that supports from meaningful and significant others determine the health outcome and also act as buffer towards stressors. The familial and social supports at times of disability are strongly related to emotional wellbeing and better quality of life. In addition to actual condition or physician rated health, self-rating of health has been identified as one of the psychological parameters contributing to survival. The modifications of risk factors through appropriate interventions prevent premature death or delay in age associated diseases and limitations in physical and

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psychological functioning. With regard to ageing, risk factors should be considered as continuous rather than dichotomous entities (Elias et al., 1990).

Functional competence is usually conceptualized as the ability to have self-care, self-management and to carry out physical activities of daily living. Many indices of physical health and psychological health build their operational definitions on the concept of functioning. The functional status of the elderly is intricately dependent on many factors including mental health status, physical health status, on locomotor status, cognitive status, social supports, ability to cope with the life situation and proper use of leisure time (Subramayam & Jamuna, 2013).

Plenty of documented evidence in the western researches is available on functional limitations in later years of life, and factors related to it since most of their health care policies are data driven. In India, very few attempts were made to study this important area that has policy implications. The periodical reviews on gerontology and geropsychology (Ramamurti & Jamuna, 1995, 1999, 2006) indicate that few studies are available on the patterns of disability in the elderly in the Indian context.

In western context, functional disability in community-dwelling elderly people is a frequent cause of admission to a hospital or nursing home and the use of long-term care services (Sager, Rudberg, Jalaluddin, Franke, Inouye, Landefeld, Siebens, & Winograd, 1996). The composition of households with elderly people is characterized by ever-smaller size (Brown, Liang, Krause, Akiyama, Sugisawa & Fukaya, 2002) reported that after recovery from an illness, elderly people living alone may need to move away from the local community where they have lived for a long time. Elderly people living alone find it harder to obtain social support in an environment with unknown neighbors than those living with others (Thompson & Krause, 1998). Furthermore, it has been reported that elderly males living alone have a higher mortality than those living with others (Kandler, Meisinger Baumert, & Lowel, 2007). From the perspective of mental health, fewer people living in a household has been associated with loneliness among the elderly. However, few reports have dealt with the actual conditions of elderly people living only with their spouse or living alone (Theeke, 2010).

From the perspective of elderly, the reasons for functional incompetence could be advanced age, loss of the spouse, and deteriorating health; from the perspective of the children, the reasons may be related to economic status or mental and physical status. Future studies need to clarify such details with respect to middle-aged and older adults living with their elderly parents. Despite these limitations, its vulnerability was observed in the elderly people living alone and among those living in a household only with their children (Murayama, Nishinaga, Sugawara, Goto, Hirose, Senuma, Shinkai, Akiyama, Tsuji, & Kamata, 2012).

Functional disabilities vary by living arrangements with different patterns and other factors. Married persons living with or without children were more advantaged on all three dimensions of functional disability. Unmarried older adults living with children only had the worst functional status, even after controlling for background, social support, income and health status variables. In addition, older adults without difficulty in receiving emotional support, who has excellent health with advanced age had significantly better BADL, IADL and ADL function. However, a statistically significant association between physical assistance and functional disability was not found. Results imply that policy makers should pay closer attention to unmarried elders living with children in community. Community

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service especially emotional support such as psychological counseling is important social support and should be improved (Hui Kun, Yifeng & Fangyuan, 2013).

Russell and Taylor (2009) reported that living alone is associated with higher levels of depressive symptoms. Previous studies have reported that the factors associated with functional disability among elderly people living alone include age, not participating in social activities, and talking to a friend over the phone less than once a week. In a cross-sectional analysis, Wang, Chen, Pan, Jing and Liu (2013) found that living arrangements were significantly associated with activities of daily living (Murayama et al., 2012).

Aged 65 years and older with visual impairment have a broad range of physical and mental health comorbidities compared to those of the same age without visual impairment, and are more likely to have multiple loco-morbidities. This has important implications for clinical practice and for the future design of integrated services to meet the complex needs of patients with visual impairment, for example, embedding depression and hearing screening within eye care services. (Helen, Gary, Bruce, Stewart & Daniel, 2014).

Older people are encountered with physical and mental health problems, chronic diseases, and also living conditions. Azar, Mostafa, Davood Shojaee and Bijan (2014) evaluated the disability scores and its associated factors among a sample of older people in Iran. Physical health in old people is decreased not only by aging of people but also by other factors such as financial problems and also employment status regardless of aging. Hoi, Chuc and Lindholm (2010) have reported a significant association among age, educational level, being household head, working, and financial poverty of older individuals. It has been proposed that women have a longer duration of life lived with disability than men. Above findings have proposed that age and gender were not independently related to aging health and the observed association seen in other studies may be due to confounding effect of other variables.

Friedrich, Gittler and Halberstadt (1998) studied the long-term effect of a combined exercise and motivational program on the level of disability of patients with chronic and recurrent low back pain (LBP). It was reported that long-term efficacy, the combined exercise and motivation program was superior to the standard exercise program. Five years after the supervised combined exercise and motivational program, patients had significant improvements in disability, pain intensity, and working ability.

As there is a dearth of researches on comprehensive assessment of functional competence in relation to several socio-demographic factors like age, gender, and locality etc., and psychological factors viz., physical and mental activity levels, health practices, health motivation, and social supports, the present study was planned with the following objective: To examine the association of socio demographic and psychological variables to functional competence in a sample of community dwelling elderly.

METHODOLOGY

Participants of the study

A sample of 300 community dwelling elderly men and women of rural and urban areas of Rayalaseema region from the age groups of 50-59, 60-69, and 70-79 years were drawn by using a multi-stage random sampling technique. The subjects were identified on the basis of census reports and also by house-to-house survey. The subjects without chronic illness and those cognitively intact were included in the study. The subjects in the study were

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individually contacted and tests were administered in one session if they were willing to participate.

Tools

The Disability scale and Health Behavior scale (Ramamurti & Jamuna, 1998) which were standardized on Indian elderly were used to assess functional competence and health behaviour in the sample, respectively. Disability scale consists of four sub scales viz., Assessment of Functional capability in ADL & IADL, performance based functional capability in motor tasks (PBADLs) and self-perception of disability (SPD). Health behavior scale consists of Knowledge of health, motivation towards good health and practices towards health. Physical and Mental Activity scale (Ramamurti & Jamuna, 1992) was used to assess the extent of physical and mental activity and Social Supports scale (Jamuna & Ramamurti, 1990) was used to examine their perception of social supports.

RESULTS AND DISCUSSION

The correlational analysis considering sub-scales of functional competence and a set of socio-demographic and psychological variables in the present investigation explains (Table 1 & 2) the nature and extent of relationship between outcome and explanatory variables. Functional competence as manifest in different facets viz., physical competence (ADLs and IADLs), performances based functional competence (PBFC) and self-perception of Functional competence (SPFC) were considered to understand each facets relationship with psychosocial variables under investigation.

A cursory glance of results (Table - I) reveals that physical competence in basic ADLs correlated positively with age ($r=.558$), gender ($r=.148$), negatively but significant with education ($r = - 0.146$) and marital status ($r=-0.291$). These correlations reveal that high scores on physical competence (functional limitations) tend to be high mostly when a person belongs to higher age, female and low education status. Physical competence in IADLs correlates positively with age ($r=.624$) and at the same time negative but significantly correlated with educational level ($-.111$) and marital status ($r =-.299$) reveals that high scores on physical competence (functional incompetence) tend to be high with advancing age (old-old). The correlation trends with education and marital status indicate that a person with low educational level and a widow / widower reported higher functional limitations in IADL performance i.e., low physical competence. Examination of the association between the measure of physical competence viz., performance based functional capability in some motor tasks (PBFC) and demographic variables, being included in the present study (Table - I) indicates that age was positively correlated ($r=.616$) but marital status ($r=-.178$) correlated significant but negatively with Performance based functional competence (PBFC).

Table I: Correlation Matrix of Socio-Demographic Variables and Measures of Functional Competence (ADLs, IADLs, PBFC)

Sl.	Variables	ADLs	IADLs	PBFC	SPFC
1.	Age	.558**	.624**	.616*	.487**
2.	Gender	.148*	.059@	.115*	.147*
3.	Education	-.146*	-.111*	-.049@	-.039@
4.	Family	.032@	.070@	.002@	.019@
5.	Location	-.048@	-.016@	.007@	.013@
6.	Marital status	-.291**	-.299**	-.178*	-.253*

* P<0.05; ** P<0.01; @ Not Significant

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ADLs: Activities of Daily Living; IADLs: Instrumental Activities of Daily Living; SPFC: Self Perception of Functional Competence; PBFC: Performance Based Functional Competence.

It is obvious to state that age, and marital statuses were the significant correlates of functional competence in the performance of certain motor tasks. It is demonstrated that physical exercise may help to maintain balancing abilities in old age. Good balance, in turn may also enable to keep physically active way of life. The association of balance with functional ability and physical activity were independent of sex and locality. A study on postural balance in relation to self reported functional ability (mobility and activities of daily living or ADL) and general physical activity in elderly men and women living in three different Nordic environments (Era et al., 1997), suggest that the subjects reporting no need of help in performing the ADL and mobility functions performed significantly better in the balance tests. The results suggest that good balance is one of the prerequisites of performance without difficulty in mobility and ADL functions. Table- I indicates that self-perception of functional competence (SPFC) correlates positively with age ($r=.487$) and gender ($r=.147$); negative but significantly correlated with marital status ($r=-.253$). These correlations reveal that high scores on self-perception of functional competence tend to be high with advancing age and gender. The correlational trend with marital status indicates that a person who is widow / widower experienced higher functional limitations in self-perception of functional competence.

Empirical studies suggest that age, sex, and residential status, for instance, are associated with basic personal activities, people in advanced old age, women and nursing home residents have lower functional performance levels in terms of ADLs and IADLs than that of their counterparts (Guralnik & Simonsick, 1993). Education, income, and marital status are expected to have their influence (e.g., work, leisure, and social activity engagement) on the performance of basic activities of daily life (Altergott, 1990).

Table 2: Correlations between Measures of Functional Competence (ADLs, IADLs, PBFC and SPFC) and Psychological Variables

Particulars	ADLs	IADLs	PBFC	SPFC
Physical and Mental Activities	-.214**	-.106*	-.212**	-.405**
Health Practices	-.661**	-.108*	-.119*	-.177**
Social Supports	-.131*	-.195**	-.165*	-.193**
Health Motivation	.032@	-.003@	.066@	-.003@

Note: @ Not Significant; ** $P < 0.01$; * $P < 0.05$.

ADLs: Activities of Daily Living; IADLs: Instrumental Activities of Daily Living; SPFC: Self Perception of Functional Competence; PBFC: Performance Based Functional Competence.

It could be seen from the above results (table II) that some psychological variables viz., physical and mental activity ($r=-0.214^*$), health practices ($r=-.661$), perception of social supports ($r=-.131$) were found to be significant but negatively correlated with physical competence in ADLs. Correlations of physical competence in IADLs with other psychological variables reported in Table - II indicate that some variables viz., physical and mental activity ($r =-.106$), health practices ($r =-.108$), and social supports ($r=-.195$) were high and negatively correlated to physical competence in IADLs. Further analysis e.g., path

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analysis would be more useful to draw further insights and to understand the path direction of variables. The third measure of physical competence viz., Performance based functional competence in certain tasks (PBFC) and its correlation with other psychological variables (Table - II) indicate that physical and mental activities ($r = -.212$), health practices ($r = 0.119$) and social supports ($r = -.165$) were negatively correlated. The fourth measure of self-perception of functional competence (SPFC) and psychological variables indicate that physical and mental activity ($r = -.405$), health practices ($r = -.177$) and social supports ($r = .193$) were significant and negatively correlated with self-perception of functional competence. But health motivation was found to be insignificant with all sub scales of functional competence viz., ADLs, IADLs, PBADLs, and SPFC.

Indian elderly, people put up with poor health and compromised on health practices due to various reasons. They could not afford to give good attention to their own health and hence had poorer health attitudes. Many men are unwilling to confront their health problems in a direct and realistic way. Marking change in daily habits and general lifestyle can be painful and some men adopt a fatalistic attitude toward illness and disease that may not serve them well in the long run. Recent research on health behavior and aging has revealed that smokers are more likely to eat high fat diets and be inactive than non-smokers. Investigations have also looked at physical activity, nutrition smoking and weight control (Hall et al., 1992). Research the survey on a variety of physical or sensory functions-reading a newspaper, lifting and carrying a package weighting 10 pounds, climbing a flight of stairs, weighing three blocks were found to be less susceptible to environmental and also cultural influences and more closely related to the physical component of disability than activities of daily living (ADL) and instrumental activities of daily living (IADL) measures (Freedman & Marton, 1998). Some studies suggest that continued involvement in intellectual and social activities may prevent cognitive decline (Ramamurti et al., 1998).

Subjective well-being in later years is influenced by a host of factors, prominent among them being the ability to maintain functional competence and availability of a social support network. Extensity of and satisfaction with the support system varied depending on the sex of the subject and urban-rural background. Competence in everyday living, and well-being were related to social network (Parker, 1996).

Psychological and social resources are thought to be strongly related to wellbeing. One among these resources is social supports. The review on social supports suggests that meaningful support from trusted others leads to good health and enhance probabilities of buffering noxious social stressors. Social support is shaped by the social networks. Studies suggest that within which the individual plays multiple roles provide potential sources to get the most effective social support. Extensity of and satisfaction with the support system varied depending on the sex of the subject and urban-rural background. Competence in everyday living, and well-being were related to social network. Reviews focused on social support as a main effect and also as a buffer. Several studies in the literature reported that meaningful supports reduce health related strains like disability. In old age, the number of social contacts and intensity in interactions may become reduced. Physical disability obstructs mobility and results in inaccessibility of friends, kinship relationship and other members. Similar to this analogy, findings in the present study, perception of social supports was found to be an important correlate or contributor to the dependent variable, functional competence.

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The cultural construct of disability always needs to be mustered before framing coping strategies and rehabilitation programmes, particularly for the disabled aged. It has been shown elsewhere in the historical genesis how the Indian mind set up was culturally bound while treating disability. The disabled aged were no exception to this treatment. In fact, the medical, social and legal perspectives even today remain the same due to culture and tradition of the country. In this changing global situation world cultural construct and its locational value requires a fresh look vis-à-vis disability of the aged (Snyder et. al., 2000; Ramamurti, Liebig & Jamuna, 2014).

Thus, the outcome of the study indicated that physical and mental activities were significant correlates of different facets of functional competence followed by, health practices, and social supports. Correlational analyses of socio demographic factors indicate that age was a significant correlate of different facets of functional competence followed by gender, level of education and marital status.

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Conflict of Interest

The author(s) declared no conflict of interest.

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