



# SOCIAL COMPETENCE AMONG PERSONS WITH INTELLECTUAL DISABILITY: A RETROSPECTIVE STUDY

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**Abstract:** The present study aims to understand the dynamics of social competence among persons having intellectual disability with respect to the level of intellectual disability, gender and associated condition. Data were collected retrospectively from available records of cases registered at NIEPID, Secunderabad during a six months period. The social quotient was calculated from the scores on the Vineland Social Maturity Scale – Indian adaptation. Data were summarized using descriptive statistics. Analysis of Variance was performed to identify if there is any significant difference in the social competence among persons with intellectual disability with respect to the level of intellectual disability, gender and associated condition. The results indicated that there is a significant difference between the social competences among persons with intellectual disability with respect to the level of intellectual disability. The social competence decreases with increase in the level of intellectual disability from mild to profound. Whereas the social competence among persons with intellectual disability does not differ significantly with respect to their gender and the associated conditions.

**Index Terms:** Social Competence, Intellectual Disabilities, Severity, Age, Gender

**Introduction:** International Classification of Mental and Behavioral Disorders (Tenth edition) [ICD -10; World Health Organization (WHO), 2007] describes ‘Mental Retardation’ currently called as ‘Intellectual Disability’ as ‘a condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills manifested during the developmental period, which contribute to the overall level of intelligence, i.e. cognitive, language, motor and social abilities’. To

define intellectual disability; along with intelligence, deficits in adaptive behavior is also a major area to focus on. The adaptive behavior is a developmental and social construct that describes the functional ways an individual typically responds to environmental demands across various situations (Dykens, Hodapp and Leckman, 1994). It is dependent upon both developmental status and cultural expectations. American Psychological Association describes adaptive behavior in terms of individual performance in relation to person-environment interactions and includes it with social skills and peer acceptance as a component of social competence (Jacobson and Mulick, 1996).

As explained by Iarocci, Yager, Rombough and Mclaughlin (2008) 'Social Competence' is a construct that captures the dynamic relation between cognitive and social factors as they relate to adaptive development. The term 'Social Maturity' came from Doll's view that social competence could be viewed as a gradual process of maturing social skills. Gresham, Sugai and Horner (2001) define 'Social Competence' as 'the degree to which students are able to establish and maintain satisfactory interpersonal relationships, gain peer acceptance, establish and maintain friendships and terminate negative or pernicious interpersonal relationships'.

Man, being a social animal needs to develop good relationships with others in the society. For developing good relationships, it is necessary to have an ability to understand the thoughts, feelings and perspectives of others, particularly those different from one's own. In addition, establishing positive peer, family and work relationships requires skills in cooperating, communicating respectfully and constructively resolving conflicts with others. Promoting one's own health, avoiding risky behaviors, dealing honestly and fairly with others and contributing to the good of one's classroom, school, family, community and environment are essential to citizenship in a democratic society. Achieving these outcomes requires an ability to make decisions and solve problems on the basis of accurately defining decisions to be made, generating alternative solutions, anticipating the consequences of each and evaluating and learning from one's decision making. In this way, Collaborative for Academic, Social and Emotional Learning (CASEL) explains the need for social emotional learning. The disadvantages of lack of social skills include loneliness, job loss, embarrassment at school or work place etc. Thus, social skills are pivotal to successful transition to adult life for youth with disabilities.

Based on various studies, researchers have come to a common conclusion that the knowledge and ability to use self care skills are essential for persons with intellectual disability to increase their own autonomy, increasing engagement in productive activities, to create more self reliance, decrease dependence on others, thus adding on to their quality of life (Christian and Luce, 1985; Hagner and Davies, 2002; Shogren, faggella-Luby, Bae and Wehmeyer, 2004).

Nihira (1999) also mentioned that the efforts to promote the development of adaptive behaviors are consistent with public policy that advocates for the social integration of individuals with disabilities into natural community environments rather than institutional settings.

Kumar, Singh and Akhtar (2009) stated that the eventual level of social development of the people with Intellectual Disabilities has implication for the degree of support needed in their literacy arrangement and their integration in the community with increasing emphasis on mainstreaming the attainment of skills in personal, domestic and community functioning.

Thus, the better understanding of the social competence of an individual is essential for rehabilitation professionals to plan a need-based intervention considering the strengths and weaknesses in the individual's competence. It is also needed to evaluate the outcome of the intervention strategy with regard to enhancement of person's competence, their effective and constructive participation further leading to complete and successful inclusion in the community.

**Methodology:** This retrospective study has followed a non-experimental descriptive research design. The aim is to understand the dynamics of social competence in the form of overall social quotient and the domain specific social competence among the persons with intellectual disability with respect to their severity level of intellectual disability, gender and associated conditions.

The sample for this study was clients registered at NIEPID during the period of six months from November 2011 till April 2012. Total number of subjects was 501. The researcher reviewed a total of 1500 case records during the period among which only those case records were selected that fulfilled the criteria that – i) the person must be registered at General Services, NIEPID, Secunderabad ii) the person must be diagnosed as having intellectual disability (i.e. IQ less than 70) iii) the information regarding gender, date of birth, diagnosis must be clearly mentioned along with the completed VSMS record sheet.

Vineland Social Maturity Scale – an Indian adaptation was used for assessing the social competence. The Vineland Social Maturity Scale is developed by E. A. Doll in 1935. A. J. Malin has adapted this original test on Indian population of age ranging from 0 to 15 years in the year 1971. The tool has eight domains such as Self Help General, Self Help Eating, Self Help Dressing, Self Direction, Locomotion, Communication, Occupation and Socialization. The responses obtained from the informant who spends most of the time with the client were recorded in the case file. The scores obtained are converted into domain specific as well as overall social quotient.

Regarding the validity of VSMS, a significant relationship between intelligent quotient (IQ) is determined by using Stanford-Binet Intelligence Scale (Hindi Adaptation) and Social Quotient on VSMS, with the Pearson correlation coefficient 0.785 (Kumar, Singh and Akhtar, 2009). Social age was found to be highly correlated with mental age ( $r = 0.906$ ) in a study by Bhawe, Bhargava and Kumar (2011). They found the correlation coefficient between SQ and DQ (on DASII) for motor and mental as 0.849 and 0.791 respectively.

Regarding the ethical considerations, consent was obtained from the concerned official in charge regarding the access to the old files. Also, personal identity of each subject was kept confidential.

**Results:** The frequency was calculated to know the distribution of the subjects with respect to their level of intellectual disability, gender and associated conditions. Among 501 sample, 314 (62.67%) were male and 187 (37.33%) were female. Regarding the severity of Intellectual Disability, among 501, 209 (41.71%) belonged to mild level, 142 (28.34%) belonged to Moderate, 105 (20.95%) severe and 45 (8.98%) belonged to profound level.

Total sample includes highest percentage 54.89% ( $n = 275$ ) of persons having intellectual disability with no associated condition and the lowest 3.59% ( $n = 18$ ) is of persons having intellectual disability with Pervasive and Developmental Disorder (PDD). The rest of the associated conditions like Cerebral Palsy (CP), Seizures Disorder, Neurological abnormalities, Down syndrome (DS) and other show percentage ranging from 5.18 to 9.18.

Mean and standard deviation (SD) was calculated to indicate the variability in the sample scores. To find the significant difference between the mean scores among persons with intellectual disability with respect to their level of intellectual disability, gender and associated conditions, One way Analysis of Variance was calculated.

Table 1 shows mean and standard deviation of domain specific SQ among persons with intellectual disability with respect to the level of intellectual disability. In the group of persons with profound intellectual disability the mean SQ is found to be 0.00 in the domain of Self Direction and is found to be highest in the domain of Occupation ( $\underline{M} = 20.22$ ,  $\underline{SD} = 10.724$ ). Similarly, among the persons with mild intellectual disability, the least mean SQ was observed in the domain of Self Direction ( $\underline{M} = 32.41$ ,  $\underline{SD} = 35.293$ ) whereas the highest is found in the domain of Self Help Dressing ( $\underline{M} = 65.56$ ,  $\underline{SD} = 27.582$ ). In the groups of persons with moderate it was found to be highest in the domain of Self Help Dressing ( $\underline{M} = 49.22$ ,  $\underline{SD} = 24.117$ ) and least in the domain of Self Direction ( $\underline{M} = 22.64$ ,  $\underline{SD} = 26.809$ ). In the persons with severe intellectual disability, the mean SQ is found to be least in the domain of Self Direction ( $\underline{M} = 6.86$ ,  $\underline{SD} = 15.990$ ) and highest in the domain of Self Help Eating ( $\underline{M} = 33.59$ ,  $\underline{SD} = 16.124$ ). Thus, it can be stated that in persons with any level of intellectual disability, the mean SQ is found to be least in the domain of Self Direction. The details are presented in table 1.

Table 1: Mean and standard deviation of Social Quotient among persons with intellectual disability with respect to the level of retardation:

Level of Intellectual Disability	Mild	Moderate	Severe	Profound	All
N	209	142	105	45	501
<b>SHG</b>					
Mean	54.43	42.48	27.42	10.04	41.40
SD	19.036	15.590	14.304	10.462	21.733
<b>SHE</b>					
Mean	62.71	49.30	33.59	18.16	48.80
SD	20.654	19.494	16.124	13.827	23.865
<b>SHD</b>					
Mean	65.56	49.22	28.38	7.58	47.93
SD	27.582	24.117	23.648	11.363	31.071
<b>SD<sup>#</sup></b>					
Mean	32.41	22.64	6.86	.00	21.38
SD	35.293	26.809	15.990	.000	30.179
<b>OCC</b>					
Mean	64.30	48.46	32.63	20.22	49.21
SD	20.103	19.955	18.559	10.724	24.307
<b>COM</b>					
Mean	56.18	38.38	30.51	16.13	42.16

SD	21.532	20.278	16.390	7.665	23.356
<b>LOC</b>					
Mean	52.53	40.57	25.17	5.49	39.18
SD	26.703	21.093	19.342	8.352	26.916
<b>SOC</b>					
Mean	57.41	41.60	28.65	14.18	43.02
SD	21.866	19.064	19.364	9.299	24.338
<b>Overall</b>					
Mean	57.54	41.50	25.35	12.13	42.17
SD	10.582	7.936	8.172	10.013	18.070

Table 2 represents degree of freedom, F value and p value for SQ among persons with intellectual disability. The F value is (122.563) seen as highly significant ( $p < 0.001$ ) for all domain specific SQs and also for overall SQ. This indicates that there is a highly significant difference in the Social Quotient among persons with intellectual disability with respect to the level of intellectual disability. It can also be observed in the table 1 that the mean SQ decreases with increase in the level of intellectual disability from mild to profound.

Table 2: Degree of freedom, F value and p value for the Social Quotient among persons with intellectual disability:

Domain		Df	F	p Value
SHG	Between Group	3	122.563**	p < 0.001
	Within Group	497		
	Total	500		
SHE	Between Group	3	99.731**	p < 0.001
	Within Group	497		
	Total	500		
SHD	Between Group	3	97.296**	p < 0.001
	Within Group	497		
	Total	500		
SD	Between Group	3	29.269**	p < 0.001
	Within Group	497		
	Total	500		
OCC	Between Group	3	104.594**	p < 0.001
	Within Group	497		
	Total	500		
COM	Between Group	3	78.665**	p < 0.001
	Within Group	497		
	Total	500		
LOC	Between Group	3	71.506**	p < 0.001
	Within Group	497		
	Total	500		
SOC	Between Group	3	87.904**	p < 0.001
	Within Group	497		
	Total	Total		
Total	Between Group	3	455.735**	p < 0.001
	Within Group	497		
	Total	500		

Note: \*\* = Highly significant,  $p < 0.001$

This finding is supported by study by Kumar et. al. (2009) on social competence and de-Bildt et. al. (2005) on social skills. They also find that, the social competence increases with decrease in the severity level of intellectual disability from profound to mild.

Table 3 indicates mean, Standard Deviation, t value, Degree of Freedom (df) and p value for the domain specific Social Quotient (SQ) and total SQ of persons having Mental Retardation with respect to their gender. Among males, the mean of SQ on Occupation (OCC) is found to be highest ( $\underline{M} = 49.75$ ,  $\underline{SD} = 24.55$ ) followed by that in Self Help Eating [SHE] ( $\underline{M} = 49.74$ ,  $\underline{SD} = 24.468$ ). Means of SQ in other domains such as Self Help General [SHG], Self Help Dressing [SHD], Self Direction [SD], Communication [COM], Locomotion [LOC] and Socialization [SOC] ranges from 47.98 to 40.69. Whereas mean of SQ on the domain - Self Direction [SD] ( $\underline{M} = 21.43$ ,  $\underline{SD} = 30.934$ ) is lowest. Similar to males, in females also, the highest mean of SQ is found to be on Occupation [OCC] ( $\underline{M} = 48.32$ ,  $\underline{SD} = 23.932$ ) and the lowest in Self direction [SD] ( $\underline{M} = 21.28$ ,  $\underline{SD} = 28.949$ ). Mean obtained on other domains ranges from 47.84 to 36.65. The Standard Deviations on domain specific SQ as well as total SQ indicates that the SQ deviates considerably from mean of SQ in the given sample. As the degree of freedom (df = 499) is more than 120, the t distribution is virtually identical to the standard normal curve. Here, the t values obtained by comparing mean of domain specific SQs and total SQs between males and females are not found to be significant after performing 2 tailed significance test. The details are presented in table 3.

Table 3: Mean, Standard Deviation, t value, Degree of Freedom (df) and p value for SQ of persons with Mental Retardation:

Domain	Gender	N	Mean	SD <sup>+</sup>	t – test value	df	p value	Sig. (2-tailed)
SHG	Male	314	41.84	22.120	0.590 <sup>NS</sup>	499	> 0.05	.555
	Female	187	40.65	21.104				
SHE	Male	314	49.74	24.468	1.135 <sup>NS</sup>	499	> 0.05	.257
	Female	187	47.24	22.795				
SHD	Male	314	47.98	31.450	0.046 <sup>NS</sup>	499	> 0.05	.963
	Female	187	47.84	30.506				
SD <sup>#</sup>	Male	314	21.43	30.934	0.056 <sup>NS</sup>	499	> 0.05	.956
	Female	187	21.28	28.949				
OCC	Male	314	49.75	24.550	0.638 <sup>NS</sup>	499	> 0.05	.524
	Female	187	48.32	23.932				
COM	Male	314	43.34	24.877	1.471 <sup>NS</sup>	499	> 0.05	.142
	Female	187	40.17	20.461				
LOC	Male	314	40.69	27.467	1.629 <sup>NS</sup>	499	> 0.05	.104
	Female	187	36.65	25.838				
SOC	Male	314	43.10	24.705	0.102 <sup>NS</sup>	499	> 0.05	.919
	Female	187	42.87	23.774				
Total	Male	314	42.63	18.146	0.745 <sup>NS</sup>	499	> 0.05	.457
	Female	187	41.39	17.963				

Note: <sup>NS</sup> = Not Significant, <sup>#</sup> = Self Direction, <sup>+</sup> = Standard Deviation

It indicates that there is no significant difference in the social competence among males and females having Intellectual Disability.

Table 4 represents mean, Standard Deviation, t – value, Degree of Freedom and significance at 2 tailed test. The mean of domain specific SQ among persons with intellectual disability having no associated condition ranges from 22.14 to 49.63 showing least in the domain of Self Direction and highest in the domain of Self Help Eating. In the group of persons with intellectual disability having at least one associated condition, the domain specific SQ is found to be highest in the domain of Occupation ( $\underline{M}$  = 48.70,  $\underline{SD}$  = 24.457) and least in the domain of Self Direction ( $\underline{M}$  = 20.45,  $\underline{SD}$  = 30.441). The degree of freedom ( $\underline{df}$  = 499), is more than 120 hence the t distribution is virtually identical to the standard normal curve. The t values obtained after performing t test to compare the mean, is found to be in the range of -.009 to 0.993. None of these values is found to be significant on performing two tailed test of significance.



**Table 4:** Mean, Standard Deviation, t-value, Degree of Freedom (df) and Significance at 2 tailed of scores on various domains of VSMS in persons with intellectual disability with and without any associated condition:

Domain	Condition	N	Mean	S D <sup>+</sup>	T	Df	p value	Sig. 2 tailed
SHG	ID with NAC	275	41.91	21.906	.583 <sup>NS</sup>	499	> 0.05	.560
	ID with AC	226	40.77	21.552				
SHE	ID with NAC	275	49.46	23.628	.682 <sup>NS</sup>	499	> 0.05	.496
	ID with AC	226	48.00	24.179				
SHD	ID with NAC	275	48.29	29.809	.285 <sup>NS</sup>	499	> 0.05	.776
	ID with AC	226	47.49	32.601				
SD <sup>#</sup>	ID with NAC	275	22.14	29.996	.624 <sup>NS</sup>	499	> 0.05	.533
	ID with AC	226	20.45	30.441				
OCC	ID with NAC	275	49.63	24.220	.425 <sup>NS</sup>	499	> 0.05	.671
	ID with AC	226	48.70	24.457				
COM	ID with NAC	275	42.15	23.635	-.009 <sup>NS</sup>	499	> 0.05	.993
	ID with AC	226	42.17	23.065				
LOC	ID with NAC	275	40.70	27.111	1.392 <sup>NS</sup>	499	> 0.05	.164
	ID with AC	226	37.34	26.620				
SOC	ID with NAC	275	42.32	23.835	-.706 <sup>NS</sup>	499	> 0.05	.481
	ID with AC	226	43.86	24.963				
Total	ID with NAC	275	42.96	17.723	1.085 <sup>NS</sup>	499	> 0.05	.278
	ID with AC	226	41.20	18.477				

Note: <sup>NS</sup> = Not significant, SD<sup>+</sup> = Standard Deviation, SD<sup>#</sup> = Self Direction

Thus, there is no significant difference in the domain specific SQ and total SQ of persons with Intellectual Disability when compared those having no associated condition with those having at least one associated condition. This is contradicted by the studies done on persons having different associated conditions such as Thomas and Singh (2006), Matson, et.al. (2009), Hatton, et.al (2003) etc. This could be because persons with different associated conditions have strengths in some domains whereas weaknesses in the others and it vary from condition to condition.

**Conclusion:** Based on the results obtained in the present study, it can be concluded that, the social competence as measured by Vineland Social Maturity Scale (Indian adaptation) among persons with intellectual disability shows highly significant difference with reference to the severity level of Intellectual Disability. As the level of intellectual disability increases from mild to profound, the social competence decreases. Whereas, the social competence among persons with intellectual disability does not differ significantly with respect to their gender and presence or absence of any associated conditions.

**Considerations for further researches:** The present study has considered few factors – level of intellectual disability, gender and associated conditions to study the social competence among the persons with intellectual disability. Whereas, there are studies which emphasize on other factors responsible for variations in the social competence such as chronological age, opportunity to learn in the environment, parenting, temperament of the child etc. Studies on such aspects will help to get a better and comprehensive picture of the social competence. Also, after getting an insight into the components of social competence, efforts are needed to understand different strategies to enhance the social competence hence enhancing constructive participation of persons with intellectual disability in the community and improving their quality of life.

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