

## Exploring Loneliness in Relation to Attributional Styles in Children with Locomotor Disabilities

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The concept of loneliness, as an experience with both cognitive and emotional components, has been scientifically extended to the child population only recently. With indications that loneliness can be reported by children as young as 5-7 years, it becomes relevant to examine this topic in children of specific populations. In this case, children with locomotor disabilities are examined. In addition, loneliness has been associated theoretically with the attributional style of an individual, wherein it is proposed that an internal-stable-global attributional style combines with other factors to predict greater loneliness. This research aimed at examining loneliness in relation to attributional styles in children with locomotor disabilities, studying in inclusive or integrated education settings in Bangalore. 30 children with locomotor disabilities were compared on scores of loneliness and attributional styles to 30 children without disabilities, using the Loneliness and Social Dissatisfaction Questionnaire and the Children's Attributional Style Questionnaire – Revised. These scores were also analysed and results indicated that there was no significant difference in loneliness between children with locomotor disabilities and non-disabled peers. There was a significant difference in attributional styles between the two groups, and a negative correlation was found between loneliness and attributional styles in the children with locomotor disabilities. The implications of the research include the argument for attributional retraining to address loneliness.

**Keywords:** loneliness, attributional styles, children with locomotor disabilities, attributional retraining

*"Being disabled should not mean being disqualified from having access to every aspect of life."*

- Emma Thompson

The very definition of disability as given by the United Nations—"any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (as cited in Tiwari, 2008, p.1) hints at challenges faced by those with disabilities in various spheres. It also points out the idea that people with disabilities may be looked at as different by the rest of society, simply for their difficulty in perfecting various activities or tasks according to the standards of perfection of society.

In childhood, interactions with others primarily pertain to peer relationships. However, it is essential to note that the importance of peer relations does not remain constant throughout childhood. The age of middle childhood, especially,

is an important period in understanding the importance of peer relations for children, since at this age, in a school setting, groups of peers and cliques become important for children in supplying them with allies and groups with activities to engage in (Parkhurst & Hopmeyer, 1999). In 1953, Sullivan, (as cited in Rubin, Bukowski & Parker, 2006), in his model of interpersonal relationships, addressed the feelings of inferiority that arise when children cannot find a position in their peer group, defining loneliness for all age groups in terms of unpleasant experiences which arise when the need for human intimacy is not adequately met.

Parkhurst and Hopmeyer (1999) define loneliness as "A sad or aching sense of isolation; that is, of being alone, cutoff, or distanced from others. This is associated with a felt deprivation

of, or longing for, association, contact or closeness” (p.58). Research on this area has recently spread to the experiences of children as well. Factors such as peer difficulties, withdrawal behaviour, and negative self-perceptions have been identified as contributing to children’s loneliness. Studies by researchers such as Cassidy and Asher (1992) have shown that nearly all children between 5 to 7 years of age could report about what constitutes feelings of loneliness, and these feelings could be reliably assessed through various measures.

Different theoretical approaches to loneliness have been suggested, and one such well-accepted approach is the cognitive model, which looks at loneliness as a result of a discrepancy between a person’s desired social relationships and the actuality of his social relationships. Whether or not a person perceives such a discrepancy depends on two factors, according to the cognitive processes approach—his history of social relationships and how he observes others’ relationships to be.

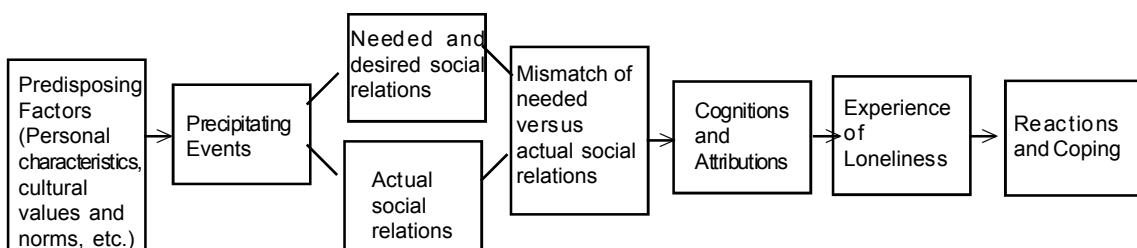
The model takes into account various predisposing factors (such as personality factors, situational variables, or cultural norms) and precipitating factors related to this discrepancy. The model also recognises that peoples’ cognitions and attributions about the causes of loneliness could augment these experiences of loneliness.

The effects of loneliness in adults were extensively covered by various theorists and researchers, as linked to problems and difficulties later on in life. For example, Rotenberg, Bartley and Toivonen (1997) cite studies such as by Sadava and Thompson in 1987 and Schumaker,

Krejci, Small, and Sargent in 1985, relating loneliness to serious problems in later life such as alcoholism and obesity respectively. Anderson and Harvey (1988) also found a modest interrelation among loneliness, depression, and shyness/social anxiety in college students. The scenario is similar in lonely children, who show the effects of rejection by peers in terms of aggression, withdrawal, shyness, and disruptive behaviour, according to various studies such as by Asher, Hymel and Renshaw in 1984, and others (as cited in Rotenberg, Bartley & Toivonen, 1997).

There are several reasons why children with disabilities may be more vulnerable to feelings of loneliness, although previous research in this scope has primarily focused on experiences of children with learning disabilities. Pavri (2001) states that children with disabilities may have problems in reading and processing social cues and in developing relationships with others, which is especially true for children with learning disabilities and mental retardation. Another reason suggested for the higher incidence of loneliness in such children is that they may not be granted equal chances to participate alongside others in school activities (Pavri, 2001). Davis (1961) and Evans (1976) (as cited in Gordon, Feldman & Chiriboga, 2005) suggested that ‘interaction strain’ - the feelings of “unease, discomfort and uncertainty that those without disabilities experience when encountering persons with disabilities, which hinders relationship development” (p.1), could result in friendship difficulties of disabled children.

Singh and Ghai (2009) qualitatively examined the lived realities of children with mobility



**Figure 1. The Discrepancy Model under the Cognitive Processes approach to loneliness (Perlman & Peplau, 1998, p. 572)**

impairments in India between the ages of 11 and 16, in a study which fell under the umbrella term of emancipatory research. Some of the themes identified in these children's responses with regard to notions of the self, related to some perceiving themselves as different and others perceiving themselves as the same as non-disabled peers, some seeing themselves as dependent on others for critical tasks, most attributing their disability to existential causes such as God or destiny, and so on.

The concept of attributional Styles was first suggested by Abramson, Seligman and Teasdale in 1978 (as cited in Carson, Butcher & Mineka, 2000) in relation to depression, and refers to the reasons or attributions people make about uncontrollable negative events that they encounter in their lives. They suggested that people either attribute internal or external, specific or global, and stable or unstable reasons for the negative events they encounter. Attributional styles has been related to loneliness by Asher et al. in 1990 (as cited in Renshaw & Brown, 1993), in whose model of loneliness, an internal-stable attributional style combines with other factors like withdrawn social behaviour, poor peer acceptance and few or no friendships, to predict greater loneliness. Renshaw and Brown (1993) quote studies by Anderson, Horowitz and French (1983) and by Peplau, Miceli, and Morasch (1982) in which lonely adults tend to attribute social failure to internal and stable characteristics. Similar outcomes were found by Sobol and Earn in 1985 (as cited in Renshaw & Brown, 1993) among unpopular children who were seen to lay the fault on themselves for social failures. Another study in this regard done by Bukowski and Ferber in 1987 (as cited in Renshaw & Brown, 1993) concluded that unpopular children with internal-stable attributional styles had greatest levels of loneliness. Renshaw and Brown's (1993) longitudinal study indicated that children who, over one year, showed increases in internal-stable attributions, along with declines in peer acceptance and the loss of friends, had increased feelings of loneliness at the end of the year.

Bauminger and Kasari (2000), in the process of studying loneliness in high functioning children

with autism, also examined aspects of attribution. They coded children's experiences of loneliness according to an internal or external locus of control, the presence of an audience, and a general versus specific response. They found that only 37% autistic children attributed internal causes to their experience of loneliness as compared to 53% of the 'normal' children. This finding, then, is opposed to the idea that children with disabilities have a more internal-stable-global attributional style than non-disabled children.

The present study focuses on experiences of loneliness associated with attributional styles, and it is assumed that general attributional styles, if seen to be related to experiences of loneliness as hypothesised, can be subjected to attributional (cognitive) retraining.

Western research has studied loneliness in children and adolescents of different age groups; in studying children with disabilities; however, Western research has mainly focused on loneliness in children with learning disabilities or developmental disabilities, as reviewed above. In this context, there is a need to examine loneliness in children with locomotor disabilities within India. It is also important to understand if a relation exists between loneliness and attributional styles corresponding to learned helplessness in children with locomotor disabilities. Understanding whether or not such a relationship exists can lend to understanding whether experiences of loneliness can be addressed indirectly by addressing attributional styles.

This research adopts a quantitative design in order to study whether levels of loneliness and attributional styles of children with locomotor disabilities differ when compared with non-disabled children, and whether there is a relationship between loneliness and attributional styles in children with locomotor disabilities. The study adopts the null hypothesis that there is no difference in loneliness and attributional styles between children with locomotor disabilities and children without locomotor disabilities, and that there is no relationship between loneliness and attributional styles in children with locomotor disabilities.

## Method

### Sample:

The sample was selected using purposive sampling and consisted of 30 children in middle childhood (8 to 13 years) with locomotor disabilities studying in inclusive or integrated education settings in Bangalore, and 30 children without locomotor disabilities matched to the first sample on the basis of age and gender. For both groups, children with an intellectual disability or any problem warranting psychiatric attention were excluded. The sample was accessed at organisations and inclusive/integrative schools which provide services to children with disabilities, and informed consent of the organisation/school, parents and the children were sought.

### Tools:

*Loneliness and Social Dissatisfaction Questionnaire*, developed by Asher, Hymel, and Renshaw (1984). It consists of 16 primary items focusing on the child's perceived feelings of loneliness, social adequacy or inadequacy, and subjective estimations of peer status in school. It also has eight filler items to put the child at ease while answering. It has shown high internal consistency (alpha of 0.90 for the 16 primary items) and a one-year test-retest reliability value of 0.55.

*Children's Attributional Style Questionnaire – Revised (CASQ-R)* developed by Thomson, Kaslow, Weiss and Nolen-Hoeksema (1998), consisting of 24 items which test the attributional formulation of the child. It has shown fair internal consistency with alpha value for the overall composite score being 0.61. Test-retest reliability over 6 months was found to be 0.53, showing fair stability over that period of time.

To ensure that items on the questionnaires were culturally fair and appropriate, within the

framework of this research, certain items were paraphrased while keeping the meaning as intact as possible. The items on these scales were rated by three independent raters who are researchers or proficient in developmental psychology, with regard to relevance and appropriateness of the situation depicted, as well as the language used, in relation to the research aims. Ratings and suggestions for modifications given by the raters were incorporated into the questionnaires.

## Results

To address the research question of whether the group of children with disabilities differs from those without disabilities in terms of loneliness and attributional styles scores, the mean scores of these two groups were calculated and compared using the independent samples t-test, and the results are shown in Table 1. Equality of variance was assumed using Levene's Test for Equality of Variances. On the variable of loneliness, children with disabilities received a mean score of 30.2667, and the group of non-disabled children received a mean score of 31.667, with a t-value of 0.664 and a significance value of 0.510, which was not a significant difference at 0.05 levels of significance. The results support the null hypothesis assumed in this research that there is no difference in levels of loneliness between the two groups.

In terms of attributional styles, the group of children with disabilities received a mean overall attributional style score of 2.4667, and the group of non-disabled children showed a mean overall attributional style score of 4.5667. The t-value from a comparison of the group means was 2.634, with a significance value of 0.011, which is a significant difference at the 0.01 level. This finding leads us to reject the null hypothesis assumed that there is no difference in attributional styles between children with locomotor disabilities and children without disabilities.

**Table 1. Levels of loneliness and attributional styles of children with disabilities and non-disabled peers**

Variable	Mean		Standard Deviation		t-value	Significance value
	Children with disabilities	Non-disabled children	Children with disabilities	Non-disabled children		
Loneliness	30.2667	31.7667	9.490	7.951	0.664	0.510
Attributional Style	2.4667	4.5667	2.9329	3.2343	2.634	0.011

The third research question this study explored was whether there exists a correlation between loneliness and attributional styles in children of both groups, using the Pearson's Correlation Coefficient, and these results are shown in Table 2.

**Table 2. Correlation coefficient between levels of loneliness and attributional styles**

	Children with locomotor disabilities	Children without locomotor disabilities
Correlation Coefficient	-0.494*	-0.400**
Significance (2-tailed)	.006	0.029

\*p<0.01 level (2-tailed) \*\* p<0.05 level (2-tailed)

From Table 2, it is seen that there exists a negative correlation between loneliness and attributional styles in both groups; a correlation value of -0.494, significant at 0.01 level, was found for the sample of children with locomotor disabilities; and a correlation value of -0.400, significant at 0.05 level, was found for the sample of children without disabilities. This finding that loneliness and attributional styles are correlated rejects the null hypothesis which was assumed in this research that there is no relationship between loneliness and attributional styles in children with locomotor disabilities.

### Discussion

The finding that there is no difference in levels of loneliness between children with and without locomotor disabilities, goes against the proposed idea (Pavri, 2001) that children with disabilities are more prone to elevated feelings of loneliness. Other literature with children with disabilities such as of Williams and Asher in 1992, Margalit and Levin-Alyagon in 1994 and others (as cited in Pavri, 2001) had suggested that children with disabilities were vulnerable to elevated levels of loneliness. Researchers have suggested that such findings may arise because of factors such as interaction strain, such children being perceived to lack desirable qualities, and so on. In addition, it was felt that factors specific to the Indian setting, where children with locomotor disabilities have reported societal experiences of being stared at, being pitied, mocked at or being the objects of curiosity (Singh & Ghai, 2009), may contribute

to elevated feelings of loneliness, as well as factors such as the restrictions in mobility which such children face, their inability to participate in normal group activities, the reactions of non-disabled peers towards them, their dependence on others, and numerous other factors.

The finding that there is no significant difference in reported levels of loneliness between the two groups can be explained in terms of the school settings these children come from. The children with locomotor disabilities were drawn from four schools in Bangalore, all of which encourage high levels of independence in these children as they grow older. The children are encouraged to meet their own needs as far as possible; for example, in terms of moving from one class to another, or from the classroom to the playing field and so on, they are encouraged to make use of walkers, wheelchairs and crutches. In cases where they obviously cannot move around independently, classmates are encouraged to offer their help.

In most schools where the research was carried out, pupils were encouraged constantly by teachers to assist the disabled child, but only when he visibly could not manage on his own. Most of these schools were observed to try to maintain a balance between encouraging independence and showing concern; this observation, however, needs to be validated through further research. Another factor observed was that most of these schools catered to families of a lower to lower-middle socio-economic class; whether such families and schools expect greater independence from children, since more individual attention and care may not be available, is a factor that must be explored further.

These schools were also seen to set good opportunities for these children to excel, as in art and music competitions. Through such opportunities, children with physical disabilities are able to win awards and receive felicitations. These children were also seen to be appreciated publicly in front of the school for achievements, which may enhance their status among peers. A significant point to be noted is that many parents of children studying in inclusive education settings across the city, especially from middle and upper

class socioeconomic status families did not consent to participating in the study. Such parents stated that they did not wish the child to feel singled out from their peers, despite assurances to the contrary. It is possible that the experiences of such children, for whom sameness with peers is emphasised despite a visible physical disability, could be significant.

It is important to note that there was a significant difference in attributional styles between the two groups with disabled children showing a more negative attributional style, thereby rejecting the null hypothesis assumed in this research that there is no difference in attributional styles between children with locomotor disabilities and children without disabilities. Research (e.g. Nielson & MacDonald, 1988) has indicated that people with disabilities have more negative internal attributional styles for their injuries, and appear less adjusted, more emotionally vulnerable, lonely, distrustful, less sociable, more sensitive and so on. Such literature suggests that these individuals will hold a helpless and more negative stance towards their future as well, which could stop them from going out and pursuing opportunities more vigorously.

Significantly, then, such attributional styles are associated with poorer adjustment and a poorer prognosis. Additionally, attributional styles in this research were assessed for a larger scale of events, and not merely injuries/disabilities or academic performances, as other studies have done. The attributional styles of children with disabilities therefore appear to indicate a more internal attribution for negative events, and this merits the role of attribution retraining in improving this level of functioning.

The importance of attribution retraining is further seen by the research finding that there is a moderate negative correlation between loneliness and attributional styles, thereby rejecting the null hypothesis assumed that there is no relationship between loneliness and attributional styles in children with locomotor disabilities. This indicates that a more internal-stable-global attributional style for negative events correlates with more elevated levels of loneliness.

This finding is in congruence with the model laid out by Asher et al. in 1990 (as cited in Renshaw & Brown, 1993), wherein an internal-stable attributional style is proposed to combine with other factors like withdrawn social behaviour, poor peer acceptance and few or no friendships, in the occurrence of higher levels of loneliness. Literature testing this model, such as by Anderson, Horowitz and French in 1983, Peplau, Miceli, and Morasch in 1982 and Sobol and Earn in 1985 (as cited in Renshaw & Brown, 1993), as well as longitudinal research by Renshaw and Brown (1993), have shown results favouring this theory. This finding appears to suggest that an internal-stable attributional style combines with other factors in predicting greater loneliness.

This makes it more likely that children attributing personal failures to internal factors will experience higher levels of loneliness and peer difficulties, which lends credence to the fact that addressing and correcting negative attributional styles through attributional retraining can have several beneficial effects, including dealing with children's levels of loneliness. This is a significant finding, given Berk's (1999) claim that attribution retraining is best begun in middle childhood before views of self become hard to change.

It may be noted that certain limitations to this study exist. The small size of samples used in comparing the levels of loneliness and attributional styles of those with and without locomotor disabilities may affect the generalised nature of results seen. This is largely due to the uniqueness of the sample of children with locomotor disabilities studying in inclusive or integrated education settings, and practical difficulties in accessing it. Another restraint on generalised ability of results was the focus only on children with locomotor disabilities; in addition, the absence in the sample of any children with locomotor disabilities from an upper middle socioeconomic status may also be significant, since, as mentioned earlier, this sample drawn from lower to lower-middle socio-economic status may be pushed to greater independence. There is also the fact that the sample of children with locomotor disabilities brought together those with acquired disabilities and those with congenital difficulties.

Because of their previous experiences, how these two sets of children view the world may differ significantly, since their period of adjustment to the disability differs.

### Conclusion

For any child in the age group of 8 to 13 years, that of middle childhood, the role of peer relations is of great significance. The peer group provides companionship, a chance to be part of shared activities, and grants a sense of belongingness. On the flip side, however, conflicts and disruptions to these valued peer relationships can upset the child's sense of security and happiness. Previous research has shown that children with locomotor disabilities in India are thought to face various challenges (Singh & Ghai, 2009), such as discrimination from peers.

This research, therefore, took on a quantitative design in exploring levels of loneliness and attributional styles in children with locomotor disabilities in the age group of 8 to 13 years, studying in inclusive or integrated education settings in Bangalore. In addition, keeping in mind theorisation linking the two variables together, the relationship between loneliness and attributional styles was also studied.

In exploring these two variables, this research has found that children with locomotor disabilities do not differ significantly from children without locomotor disabilities in levels of loneliness. This finding does not verify previous literature which had suggested that such a difference does exist, but can be explained in terms of the atmosphere of independence and cooperation these children are schooled in. The same children, however, showed a significant difference in attributional styles as compared to non-disabled peers, with more negative attributional styles, showing that they tend to attribute internal-stable-global reasons for negative events. The results have also shown that there exists a negative correlation between loneliness and attributional styles in children with locomotor disabilities, which lends credibility to the aspect of retraining the child's attributional style so as to address negative feelings such as loneliness.

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