



Relocation And Mathematics Anxiety Among Armed Forces Children

Dr. Harveen Kaur Assistant Professor Education, Lovely Professional University,

Dr. Sudeshna Lahiri Roy Prof Calcutta University, Education Department, Calcutta

ABSTRACT

The Indian armed forces are amongst the largest in the world. A common saying in the military is that when one person joins, the whole family serves. Military families may often be in the background of public discourse on the military, but they are critical to its success. Military families move frequently. On the average, soldiers receive Permanent Change of Station (PCS) orders about every 3 years. These moves can be a positive or negative experience for the family. Residential Relocations provide families with the opportunity to meet new people and discover new cultures. The moves can also be very stressful and disruptive to family life, which is a big problem. A review of the literature on military families suggests that residentially mobile military children may be buffered by the adverse consequences of moving in part because of connections to school staff and teachers (Drummet, Coleman, and Cable, 2003). In addition, teacher support may help promote mobile children's favorable attitudes toward school (Gruman et al., 2008). Children from Military Families are more prone to Anxiety and stress.

Keywords: Military Families, Residential Relocations, Indian Armed Forces, Mobile children, Anxiety, Stress

Introduction:

The Indian armed forces are amongst the largest in the world. A common saying in the military is that when one person joins, the whole family serves. Military families may often be in the background of public discourse on the military, but they are critical to its success. Although aspects of military life can be difficult for families, positive family functioning boosts a service member's morale, retention, and ability to carry out missions (Shinseki, 2003). If the family lives on a military post, much of the educational, social, and recreational activities are offered on that base. Even though the shortage of on-base housing has forced a greater proportion of military families to reside within the civilian community in recent years, all military children are inculcated with military values to some extent (Giffen & McNeil, 1967). Military families move frequently. On the average, soldiers receive Permanent Change of Station (PCS) orders about every 3 years. These moves can be a positive or negative experience for the family. Residential Relocations provide families with the opportunity to meet new people and discover new

cultures. The moves can also be very stressful and disruptive to family life, which is a big problem.

Most Military children experience moving at least once during childhood, the typical military family moves every 2 to 3 years. Adolescents are probably more subject to significant changes in their daily routines during deployment. Mathematics Anxiety appears to increase across development until it peaks at about ninth or tenth grade and then plateaus thereafter (Hembree, 1990), persisting into older adulthood (Donelle, Hoffman-Goetz, & Arocha, 2007). There is a need to understand about the root cause of Mathematics Anxiety among these adolescents. There are numerous reasons for the Mathematics Anxiety among the adolescents. Children from Military Families are more prone to Anxiety and stress. In recent years the context of Military service includes higher operation tempo, increased deployments, relocations, and family separations (Military Family Resource Center, March 2000). Although relocation does occur in the civilian work force, relocation in the military is often more demanding. Military families move four times more frequently than their civilian counterparts (Griffith et al., 1988). Many military and Civilian personnel view relocation as a challenging and exciting event. Relocation may provide families with the opportunity to meet new people and to discover new cultures (Styles, Janofsky, Blankinship, & Bishop, 1988). According to a study, Relocation has been reported not only as a precipitating factor in child maladjustment (Chaskel, 1964; Pedersen & Sullivan, 1964; Kurlander, 1961), but also as a hindrance of educational goals and scholastic achievement (Darnauer, 1976); Pepin, 1966) which impede the capacity for intimacy, and interfere with the formation of occupational goals (Dariauer, 1976). Limited research addresses whether teacher relationships and school climate explain mobility-child development associations. Bradshaw et al. (2010) found that residentially mobile military children reported stressors from moving including those from developing new student/teacher relationships and adapting to a new school. A review of the literature on military families suggests that residentially mobile military children may be buffered by the adverse consequences of moving in part because of connections to school staff and teachers (Drummet, Coleman, and Cable, 2003). In addition, teacher support may help promote mobile children's favourable attitudes toward school (Gruman et al., 2008).

Objectives of the Study:

1.1 To find out residential relocation among Secondary School Students of Military Families.

1.2 To find out Mathematics anxiety among Secondary School Students of Military Families

1.1.1 Effect on Residential Relocation in relation to Branch of services of father: There were total 484 students out of 500 having Fathers serving in different Branch of service (Army, Navy and Air Force). To test the hypotheses, variance was analysed into

different components and variances from different sources were compared. For testing the hypothesis, the employed technique was “Analysis of Variance” (ANOVA). To find out the effect on Residential Relocation among secondary school students of Military Families in relation to branch of services of father; Army, Navy and Air force, the data was subjected to descriptive statistics and F-tests,

1.1.1 Residential Relocation in Relation to Branch of Services of Father

BRANCH OF SERVICE		Family Relocation	Neighbourhood Relocation	School Relocation	Peer Relocation
ARMY	Mean	22.60	21.14	24.96	24.27
	N	214	214	214	214
	Std. Deviation	6.69	5.51	9.89	6.11
NAVY	Mean	22.49	22.10	24.43	24.75
	N	148	148	148	148
	Std. Deviation	7.43	6.00	9.879	6.094
AIR FORCE	Mean	21.70	20.39	24.98	24.34
	N	122	122	122	122
	Std. Deviation	7.08	5.45	10.72	6.210
F-Tests	Mean	22.34	21.25	24.80	24.44
	N	484	484	484	484
	Std. Deviation	7.02	5.68	0.08	6.12
	F-Values	0.683	3.109**	0.147	0.289
	Significance	0.505	0.046	0.863	0.749

** Significant at 0.05 level

Dependent Variables: Residential Relocation

Independent Variables: Branch of Services

- I. There was no significant effect of branch of services of the father as a parent on Residential Relocation among secondary school students of Military Families, on the dimensions: Family Relocation, School Relocation and Peer Relocation of Residential Relocation.
- II Branch of services of father had shown significant effect on the dimension: Neighbourhood Relocation, of Residential Relocation at 0.05 level of significance.

1.1.1.2 Effect on Mathematics Anxiety in relation to branch of services of father: There were 484 students having fathers from different branch of services (Army, Navy and Air Force). To test the hypotheses, variance was analyzed into different components and variances from different sources are compared. For testing the hypothesis, the employed technique was “Analysis of Variance” (ANOVA). To find

out the effect on Mathematics Anxiety among secondary school students of Military Families in relation to branch of services of father; Army, Navy and Air force, the data was subjected to descriptive statistics and F-tests, the summary Table 1.2.1 is shown below.

Table 1.2.1 Mathematics Anxiety in Relation to Branch of Services of Father

Branch of service		SOMATIC INDICATORS	COGNITIVE INDICATORS	ATTITUDINAL INDICATORS
Army	Mean	29.61	27.93	32.74
	N	214	214	214
	Std. Deviation	7.50	6.68	9.31
Navy	Mean	29.51	27.22	31.50
	N	148	148	148
	Std. Deviation	6.71	6.79945	9.279
Air force	Mean	30.37	27.83	32.75
	N	122	122	122
	Std. Deviation	8.39	5.86	10.17
F-Tests	Mean	29.77	27.69	32.36
	N	484	484	484
	Std. Deviation	7.50	6.52	9.52
	F-Values Significance	0.531	0.549	0.871
		0.588	0.578	0.419

Dependent Variables: Mathematics Anxiety

Independent Variables: Branch of Service

- I. There was no significant effect of Mathematics Anxiety in relation to the fathers serving in different branch of services (Army, Navy and Air Force).
- II. The Null hypothesis there is no significant effect of Mathematics Anxiety in relation to the students having fathers in different branch of services (Army, Navy and Air Force), stands accepted.

Conclusion

The present study has been conducted in Army Public Schools of West Bengal. Army Public School (APS) is a system of public schools established for imparting education to the children of the Indian Armed Forces (Army, Navy and Air force), controlled by AWES (Army welfare Education Society). This study will explain the concepts of Relocations and

Mathematics Anxiety among Military family students and will provide the guidelines to the Military Services while Relocating the Military Families to the new place by changing their Relocation criteria according to the needs of the military families especially during adolescence period of their children. This study will help Military Services to better meet the needs of relocating families by looking into the various problems faced by adolescents particularly in the field of Mathematics. The study can prove beneficial to the parents, administrators, counsellors and social workers by giving them understanding to the extent to which they can change the environment and school programme to bring change in the teaching methodology for the relocating children especially in the subject Mathematics, so that students enjoy the subject well besides having many difficulties faced while relocation.

References

- 1 Janofsky B. (1989). Family Adjustment to Relocation: Technical Report 968, United States Army Research Institute for the Behavioral and Social Sciences: Army Project Number 2Q263007A792
- 2 Kaur, J. (2014). Adolescents' Perception of parenting as related to family environment in defense officers families in India. *International Journal of Scientific & Engineering Research*, Volume 5, Issue 2, 96-98, ISSN 2229-5518
- 3 Styles M., Janofsky, B., Blankinship, D., & Bishop, S. (1988). *Investigating family Adaptation to Army life: Exploratory site visit findings*, (PUTA WP88-13). Alexandria, VA: U. S. Army Research Institute for the Behavioral and Social Sciences.
- 4 Kevin, W.D. (2005) Geographic Relocation Frequency, Resilience, and Military Adolescent Behavior. *Military Medicine* 170.7 (Jul 2005): 638-42.
- 5 Das, R. & Das, G.C. (2013). Math Anxiety: The Poor Problem Solving Factor in School Mathematics. *International Journal of Scientific and Research Publications*, Volume 3, Issue 4, April 2013, ISSN 2250-3153
- 6 Ftio, E.A & Hickiman, R.A. November (1981), *As parents go, so go the children, The Adjustment and Development of Military Children, 14-20*, Family Research Centre Graduate School of Human Behaviour, REPORT No. TR-USIU-81-01 1,981
- 7 Makekau, M. (2010), *Helping children cope with deployment and beyond*, in *When Dad goes to war*, retrieved from, <http://becausehopematters.com/books>
- 8 Park, N. (2011). *Military Children and Families, Strengths and Challenges during Peace and War*, American Psychological Association 0003-066X/11/\$12.00 Vol. 66, No. 1, 65-72, DOI: 10.1037/a0021249
- 9 Whytie, J. & Anthony, G. (2012). *Maths Anxiety: The Fear Factor in the Mathematics Classroom*, *New Zealand Journal of Teachers' Work*, Volume 9, Issue 1, 6-15, 2012

- 10 Srivastava, R.; Imam, A. & Singh, P.G. (2016). Mathematics anxiety among secondary school students in relation to gender and parental education. *IJAR* 2016; 2(1): 787-790
- 11 Ng, L.K. (2012). Mathematics Anxiety in Secondary School Students, National Institute of Education, Singapore 570-572, in J. Dindyal, L. P. Cheng & S. F. Ng (Eds.), *Mathematics education: Expanding horizons* (Proceedings of the 35th annual conference of the Mathematics Education Research Group of Australasia). Singapore: MERGA. © Mathematics Education Research Group of Australasia Inc. 2012.
- 12 Beilock, S.L. & Maloney, E.A. (2015). Math Anxiety: A Factor in Math Achievement Not to Be Ignored. *Policy Insights from the Behavioral and Brain Sciences* 2015, Vol. 2(1) 4- 12 © the Author(s) 2015 DOI: 10.1177/2372732215601438