

# Adult Children Migration and Perceived Mental Health of Elderly Parents in Rural Area of Parbat

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## ABSTRACT

**Introduction:** Increasing trend of elderly population across the world along with the increased rate of adult children migration has brought in significant impact on mental health of elderly population which has been a major concern nowadays. This study aimed to assess relationship of adult children migration and perceived mental health of elderly parents in the rural area of Parbat.

**Methods:** A descriptive cross-sectional study was conducted among 190 elderly parents of Modi rural municipality of Parbat district. A structured interview with validated Nepali version of DASS-21 (Depression, Anxiety, and Stress Scale) was used to assess the perceived mental health of elderly parents.

**Results:** Study findings showed that 57.9% respondents had at least one migrant child. Depression, anxiety and stress were prevalent among 15.8%, 28.9% and 13.2% respondents respectively. Perceived mental health of the respondents was significantly associated with age, gender, educational status, marital status, living arrangement and use of internet services ( $p < 0.05$ ). Stress among respondents was associated ( $p = 0.016$ ) with migration of adult children.

**Conclusions:** Mental health problems are prevalent among elderly parents and children migration is the significant influencing factor for mental health among them.

**Keywords:** Adult Children Migration, Elderly Parents, Perceived Mental Health, Rural Area

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## INTRODUCTION

Today's world is facing dramatic demographic changes, including an increase in the number and proportion of elderly people around the world<sup>1</sup>. Ageing has become a major phenomenon that has brought out serious impact for low- and middle-income countries<sup>2</sup>. The population aged 65 years and above in Nepal was 6.1% in 2022<sup>3</sup>. In Nepalese context, over 85% of elderly people live in rural areas from where adult children move away from their birthplace for employment opportunities everywhere. Nearly 25% households had at least one migrant member and among which rural to urban migration rate is 18%<sup>4</sup>.

Mental health is one of the most important dimensions of health in elderly individuals. As age advances, many health problems are likely to occur at the same time. Approximately 15% of elderly suffer from mental disorders<sup>5</sup>. Depression, anxiety and stress are common mental health problems among elderly in context of Nepal with prevalence of 15.4%, 18.1% and 12.1% respectively<sup>6</sup>. Among all mental disorders, depression is the most prevalent mental illness among older adults in Nepal contributing 41.8% in community setting<sup>7</sup>.

Evidence from previously conducted studies

reports that elderly parents who are left behind by the adult children face range of social and health care challenges and become more vulnerable to mental health problems like depression, loneliness, and many other physical diseases<sup>6,8-11</sup>. About 36.9% of elderly individuals with migrant children experienced mental health issues, which was a higher percentage than that found in the general elderly population<sup>12</sup>. In Nepal, a comparison showed that left-behind elderly parents had a higher prevalence of mental health disorders compared to non-left-behind individuals. The migration of adult children led to 78.8% of elderly parents experiencing mental problems<sup>13</sup>.

The achievement of complex health and the availability of resources and care, particularly that provided by the family, are deeply connected and the health of elderly parents who are left behind suffer when their children migrate<sup>12,14,15</sup>. Traditional intra-family care systems may be weakened due to absence of children and parents' health may suffer as a result<sup>16</sup>. In Nepal, many mental disorders are common among left behind parents with prevalence of depression 15.4%, anxiety 18.0% and stress 12.1% respectively<sup>6</sup>.

Nepalese society is also affected by heavy out-migration of adult children. Specially, rural regions are facing a lack of human resources because of significant outmigration. In the Parbat district, 32.6% household had at least one migrant family member in 2021<sup>17</sup>. So, this study aimed to assess whether the adult children migration is associated with perceived mental health status of elderly parents.

## METHODS

A cross-sectional study was conducted from 14<sup>th</sup> August 2022 to 10<sup>th</sup> September 2022 on three wards of Modi Rural Municipality of Parbat district. Parbat district is one of the 77 districts of Nepal which is located in Gandaki Province was selected purposefully because of

high rate of adult migration<sup>17,18</sup>.

Both male and female of 60 years and above age groups who were willing to participate in study, had at least one child of over 20 years of age and permanent resident of that area was included in study sample.

Sample size was calculated by using Cochran's formula<sup>19</sup> based on 15.4% prevalence of depressive symptoms among elderly parents<sup>6</sup>, 0.05% significance level and 5 % acceptable sampling error. Calculated sample size was 190. Among total eight wards of Modi rural municipality three wards i.e. one, six and seven were selected by using lottery method. By using the equal calculated sampling fraction, 65, 80 and 45 samples were taken from three respective wards i.e. from ward no. one, six and seven.

Door to door survey was done for data collection. The starting point in each selected ward was in a central location of ward. A bottle was spin at central point and the tole pointed by the bottle at the end of spinning was chosen. First house of the tole was the first sample. Subsequent household was selected by going to the house whose first door was closest to the just visited house and had elderly aged over 60 years and older, until required number of household was reached. Total 190 samples were approached by door to door visit. If two or more elderly parents were present in the same household, one elderly was selected by using coin tossing method.

Structured interview schedule consisted of validated Nepali Version of Depression Anxiety Stress Scales (DASS-21) was used to collect data. DASS-21 was developed by Lovibond and Lovibond (1995), a shorter version of the 42-item version of the original DASS. The DASS-21 was a set of three self-report sub-scales designed to measure the emotional states of depression, anxiety, and stress, each consisting of seven items. The statements were scored from 0 to 3, in a four point scale (0=

Never, 1= Sometimes, 2= Often & 3= Almost always). The depression scale items are 3, 5, 10, 13, 16, 17 and 21. The depression score more than 9 was considered as having depression. The anxiety scale items are 2, 4, 7, 9, 15, 19 and 20. The anxiety score more than 7 was considered as having anxiety. The stress scale items were 1, 6, 8, 11, 12, 14, and 18. The stress score more than 14 was considered as having stress<sup>20</sup>. Score on DASS- 21 was multiplied by 2 to calculate the final score. DASS-21 is the valid and reliable tool to assess the emotional status of older people in Nepal. With Cronbach alpha values of 0.95 for the overall scale, 0.93 for depression, 0.79 for anxiety, and 0.91 for stress, the Nepali version of the DASS- 21 exhibited adequate internal reliability<sup>21</sup>cross-sectional survey.\nMETHODS: The DASS-21 was administered (May-July 2019). The current study showed the Cronbach alpha values of 0.82 for the overall scale, 0.76 for depression, 0.82 for anxiety and 0.85 for stress.

Ethical approval was obtained from Institutional Review Committee (IRC) of Tribhuvan University, Institute of Medicine [Ref: 66 (6-11) E2 079/80]. Formal written permission was taken from the Chief Administrative Officer of Modi rural municipality. Informed written consent was obtained from each respondents. Data was collected in respondent's own household in a separate room by using structured interview technique. Researcher herself interviewed each respondents using pre - set questionnaires in a separate room of their household. It took around 20-30 minutes for each interview and around 7-8 respondents were interviewed in a day. If mental health problem was identified, personal as well as family counselling was done for further management of the condition. For respondents who were diagnosed as having severe problem, counselling and referral was done to nearby health institution for further evaluation and treatment.

Data was entered into Epi data 3.1 and exported into SPSS version 16 for further analysis. Data was presented by using tables and figures.

## RESULTS

Mean age of the respondents was 70.69 with standard deviation of 8.173 years and 55.3% of them were male. Similarly, 65.8% of respondents were from Brahmin/Chhetri group, 68.4% of respondents were married and 77.9% were living in a joint family. Likewise, 67.4% respondents were using mobile phone and 23.7% respondents were using internet services. (Table 1)

**Table 1 :** Socio-demographic Characteristics of the Respondents (n=190)

Characteristics	Number	Percent
<b>Age group in years</b>		
60-69	102	53.7
70-79	55	28.9
80 and above	33	17.4
Mean $\pm$ SD- 70.69 $\pm$ 8.173		
<b>Gender</b>		
Male	105	55.3
Female	85	44.7
<b>Ethnicity</b>		
Brahmin and Chhetri	125	65.8
Dalit	42	22.1
Janajati	16	8.4
Others (Thakuri, Sanyasi)	7	3.7
<b>Marital status</b>		
Married	130	68.4
Widow/widower	59	31.1
Divorced	1	0.5
<b>Type of family structure</b>		
Joint	148	77.9
Nuclear	36	18.9
Extended	6	3.2
<b>Number of children</b>		
< 3	56	29.5
$\geq$ 3	134	70.5

Living arrangements			Reason for migration		
Living alone	23	12.1	Service	61	55.5
Living with children	95	50.0	Foreign employment	55	50.0
Living with spouse only	70	36.8	Business	37	33.6
Living with relatives	2	1.1	Labor	25	22.7
Mobile phone user	128	67.4	Industry	10	9.1
Internet user	45	23.7	Agriculture	6	5.5
			Received economic support from migrant children	57	51.8
Household expenditure fulfilled by sent money (n=57)					
			Very much	32	56.1
			Some	24	42.1
			Minimal	1	1.8
Frequency of migrant's visit					
			Less than 1 year	27	24.5
			Annually	42	38.1
			More than 1 year	34	30.9
			Never	7	6.5

Study findings revealed that 57.9% of the respondents had at least one migrant adult children. Among the respondents, 77.3% of the migrant children of the respondents' were son. Similarly, 80% adult children migrated temporarily from their homeland and 60.9% had internal migration. Likewise, 55.5% of the adult children migrated for service and 38.1% of the migrant children visit their parents annually. Similarly, 51.8% of respondents received economic support from their children and among them, 56.1% household fulfills their necessities very much by sent money (Table 2).

**Table 2 :** Information of Respondents' Migrated Adult Children (n=110)

Characteristics	Number	Percent
No. of migrant children		
< 3	91	82.7
≥ 3	19	17.3
Relationship with migrant children		
Son	85	77.3
Daughter	16	14.6
Both	9	8.1
Type of migration		
Temporary	88	80.0
Permanent	22	20.0
Place of migration		
Internal	67	60.9
International	31	28.2
Both	12	10.9

Study findings revealed that 15.8% of the respondents were having depression and among them 60.0% had mild depression. Similarly 28.9% of the respondents were having anxiety and among them 25.5% had mild anxiety and 9.0% had extremely severe level of anxiety. Likewise, stress was seen among 13.2% respondents while only 4.0% respondents had experiences extreme severe level of stress. Study findings also showed that perceived mental health of respondents was associated with gender, marital status, living arrangement, use of internet services and having own mobile phone ( $p<0.05$ ).

As shown in Table 3, migration status of adult children was significantly associated with stress among respondents ( $p<0.05$ ) and there was no significant association of adult children migration with depression and anxiety among respondents.

**Table 3 :** Association of Adult Children Migration Status with Perceived Mental Health Status of Respondents (n=190)

Adult Children Migration Status	Depression		Anxiety		Stress	
	Present No. (%)	Absent No. (%)	Present No. (%)	Absent No. (%)	Present No. (%)	Absent No. (%)
Present	18 (16.4)	92 (83.6)	37 (33.6)	73 (66.4)	20 (18.1)	90 (81.8)
Absent	12 (15.0)	68 (85.0)	18 (22.5)	62 (77.5)	5 (6.3)	75 (93.7)
$\chi^2$ value	0.065		2.793		5.771	
<i>p</i> - value	0.799		0.095		0.016	

$\chi^2$  value - Chi-square value

## DISCUSSION

This study was conducted with the aim of assessing the association of adult children migration with perceived mental health of elderly parents. This study revealed that 57.9% elderly parents had at least one migrant child. This finding is supported by the study done in Kanchanpur district, which showed 51.2% parents had at least one migrant child<sup>4</sup> and Nepal 2016 Demographic and Health Survey reported that 47.0% of household had at least one migrated child<sup>22</sup>. Study finding indicates that except stress other dimensions of mental health were not significantly associated with migration status of adult children. These findings were supported by various studies done in Nepal, Thailand, India, Ireland<sup>4,6,23-26</sup>Nepal. Binary logistic regression was used to identify whether migration of adult children was associated with elderly parent's self-reported chronic diseases, depressive symptoms, perceived loneliness and social support. More than half of the study household (51.2%). In general, the understanding of the migration itself and mental health status of parents is complex. From many literatures it was concluded that elderly population in the world is continuously rising where adult children are the main support system for their parents and the adult children migration had a direct impact on overall health of elderly parents left in their households, especially in rural area<sup>27-29</sup>. The variations in findings might be due to the study time, rural urban difference in study setting and differences in provision of social support among elderly parents and possible cultural differences among elderly parents in different study. On another context, migrant

children may indirectly support their elderly parents by providing economic security and other different facilities as well.

Study findings indicates that 15.8% elderly parents were having depression. A study conducted on Tarakeshwor municipality of Kathmandu supported this finding which showed 14.3% prevalence of depression among elderly<sup>30</sup>. Study findings were inconsistent to the another studies which showed the 35.4%<sup>4</sup>and 53.1%<sup>31</sup> prevalence of depressive symptoms among elderly people. A study from India showed higher prevalence of depression (41.7%) among elderly<sup>32</sup>. The discrepancies in the result may be due to variation in study setting, sample size and data collection tool. In this study, 28.9% elderly parents were having anxiety. These findings are similar with previous study conducted on rural communities of Kathmandu which showed 27.4% prevalence of anxiety among elderly parents<sup>30</sup>. The current study findings were also supported by the previous study that showed the prevalence of anxiety symptom cases ranged from 21.7% to 32.3%<sup>33</sup>. Similar finding was also reported in China where prevalence of anxiety symptoms was 21.7%<sup>34</sup>. It can be concluded that though the different setting and instrument was used to assess anxiety among elderly people, the prevalence of having anxiety among elderly is almost similar. Current study revealed that 13.2% prevalence of stress among elderly parents.

Similar findings reported on previous studies i.e in Thailand 10.9% prevalence of stress problems<sup>35</sup> and in Nepal 12.1% prevalence of stress<sup>36</sup>.

This study revealed that besides children migration there are various other background factors like gender, marital status, living arrangement, use of internet services and having own mobile phone are significantly ( $p < 0.05$ ) associated with the depression, anxiety and stress among elderly parents. This finding was supported by various other studies conducted on Nepal, Ethiopia, Thailand<sup>35-40</sup>. So the further studies can be done to examine the positive effects of adult children migration among elderly parents with migrant children. Other studies by focusing only on the empty nesters can be done to make perfectly clear about the association of children migration and mental health of left behind elderly parents.

## CONCLUSIONS

The prevalence of adult children migration from rural area is high. Most of the adult migrated children are son. Internal migration is common than international migration and most of the migrants children are migrated temporarily from their homelands. Mental health problems like depression, anxiety and stress are highly prevalent among elderly parents and anxiety is the most common problem. Adult children migration tends to be associated with stress among elderly parents.

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