

## Distress among labourers: Effect of socio-economic and personal variables

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### ABSTRACT

The study was conducted to assess the effect of socio-economic and personal variables on distress among labourers. The study was based upon a sample of 240 labourers (18 years and above in age ) drawn in equal numbers from four randomly selected villages and four cycle manufacturing units of Ludhiana district. The results revealed that education and income level along with self esteem and social support were found to be significantly determining distress among local labourers irrespective of their being in agricultural or industrial sectors.

### INTRODUCTION

Distress implies mental or physical strain imposed by pain, trouble, worry, or the like and usually suggest a state or situation that can be relieved. It occurs when an individual cannot adapt to stress. Stress is more due to psychological factors than physical factors (Ananthanaman, 2001). Psychological stress usually occurs when people consider situations difficult or unable to manage. Stress is believed to cause depression, irritation, anxiety, fatigue and thus lowers self-esteem and reduce job satisfaction (Manivannan *et al.*, 2007). Physical stress refers to a physical reaction of the body to various triggers. According to Cassel's theory of vulnerability, migration triggers secretion of stress hormones, *e.g.* adrenalin, noradrenalin and cortisol, thus upsetting the body's normal balance of hormones. The immune system will be affected and the risk of acquiring diseases will increase (Hjelm, 2002). How we cope with stress is primarily affected by how we perceive our own ability to handle a situation.

Migration is movement of people from one place of abode to another, either from one district to another or one state to another or to a different country altogether. Migration is a process of social change where an individual, alone or accompanied by others, because of one or more reasons of economic betterment, political upheaval, education or other purposes, leaves one geographical area for prolonged

stay or permanent settlement in another geographical area. It involves not only leaving social networks behind but also include experiencing at first a sense of loss, dislocation, alienation and isolation which puts extraordinary stress on individuals and their families (Bhugra, 2004).

Self-esteem is considered an important component of psychological health and it encompasses both self-confidence and self-acceptance. It is the global evaluative dimension of the self and also referred to as self-worth or self-image (Santrock, 1998). A low self-esteem for a prolonged period may cause emotional, mental and even physical problems. In the most aggravated form, it can lead to anxiety, stress or depression (Podder, 2007).

Another variable probably receiving most research attention as a potential moderator of the impact of stress is social support. As a protective factor for immigrants and their families, social support has an important position. Social support is external power resource arise from connections with people outside working environment available in the emotional or material form. A model given by Cohen and Wills (1985) suggests that social support produces a generalized positive effect on individuals. A large social network might provide more opportunities for positive experiences and help individuals to avoid negative ones. The present study aims at

### Key words :

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exploring the effect of different socio-economic and personal factors on distress among migrant labourers. It gains importance in the light of earlier studies as reported by Hovey and Magane (2002) that psychological stress if not supported properly, results in the disruption of psychological functioning of the individual.

## METHODOLOGY

### Sample:

The present study was undertaken in Ludhiana district of Punjab to examine the magnitude of physical distress among the migrant labourers. The sample for the present study was drawn from cycle manufacturing units and villages of the study area which comprised of 240 labourers about 18 years of age drawn in equal numbers from both the enterprises that is cycle manufacturing units (n=120) and agriculture (n=120). Four cycle manufacturing units were selected randomly from a list of cycle manufacturing units employing at least 150 labourers in their enterprise. In case of agricultural enterprise, four villages were selected randomly from two randomly selected blocks of Ludhiana district. The sample for the present study (n=240) included 40 local labourers and 80 migrant labourers in each of the selected enterprises. Further, two groups of migrant labourers were selected purposively on the basis of length of time spent in Punjab after migration. One group of migrant labour included those (n=40) who were here for more than one year while the second group (n=40) had spent less than or equal to one year in either of the two enterprises.

### Tools:

The Cornell Medical Index Health Questionnaire developed by Wig *et al.*, (1983) was administered to assess the magnitude of distress among labourers. Self-esteem of the labourers was assessed by using Self-Esteem Scale by Coopersmith (1986). Social support of the labourers was assessed by using Interpersonal Support Evaluation Checklist (ISEC) originally produced by Cohen

and Hoberman (1983). Personal interview schedule was prepared and administered to labourers to record the personal information of the respondents.

## RESULTS AND DISCUSSION

The findings of the present study have been presented under following heads:

### Distribution of labourers by age:

Table 1 depicts the distribution of labourers by age and duration of stay in Punjab. It is clear from the table that highest proportion (40%) of agricultural local labourers belonged to the age group of above 40 years followed by 30 per cent in the age group of 31-40 years. Proportion of agricultural labourers was found to increase with increase in age. This showed that locals started working as agricultural labour generally, after attaining the age of 20 years. The migrant agricultural labourers whose stay was less than one year in Punjab were generally less than 20 years in age. The migrant agricultural labourers whose stay in Punjab crossed one year were mostly in the age group of 21-30 and above 40 years.

In industrial sector, there seems to be the similar trend for local labourers as was seen in case of local agricultural labourers. They generally joined the industrial labour job after attaining the age of 20 years. This is the crucial age when planning of the future of the youth is made in Punjab. The migrant industrial labourers whose stay was more than one year started working as industrial labourer at an earlier age than their counterparts in agricultural sector. The majority of (75%) industrial migrant labourers with one year or less stay were found in the age group of 15-30 years. The data highlight that migrant labourers generally join the labour occupation at non-adult age. This may be due to poverty which in turn denies them the opportunity for education. As per Maslow's Humanistic theory, migrants join labour force to deal with the basic issue of survival.

**Table 1: Percent distribution of agricultural and industrial labourers by age**

Sr. No.	Age categories (years)	Agricultural labourers				Industrial labourers				Agricultural and industrial combined	
		Local	Migrant		Local and migrant combined	Local	Migrant		Local and migrant combined		
			≤1 yr. stay	>1 yr. stay			≤1 yr. stay	>1 yr. stay			
n	%	n	%	n	%	n	%	n	%	n	%
1.	18-20	2 (5.00)	20 (50)	7 (17.5)	29 (24.17)	1 (2.5)	13 (32.5)	10 (25)	24 (20)	53 (22.08)	
2.	21-30	10 (25)	17 (42.5)	13 (32.5)	40 (33.33)	11 (27.5)	17 (42.5)	19 (47.5)	47 (39.17)	87 (36.25)	
3.	31-40	12 (30)	2 (5)	8 (20)	22 (18.33)	16 (40)	8 (20)	7 (17.5)	31 (25.83)	53 (22.08)	
4.	above 40	16 (40)	1 (2.5)	12 (30)	29 (24.17)	12 (30)	2 (5)	4 (10)	18 (15)	47 (19.59)	

**Educational level of labourers:**

The educational level of different categories of labourers is presented in Table 2. It was found that 50 per cent of the local agricultural and 87.51 per cent of industrial labourers were literate up to different levels. Only 12.5 per cent of agricultural labourers and 37.5 per cent of industrial labourers were recorded as educated up to matric level. On the other hand, majority (62.5%) of the migrant industrial labourers with ‘one year or less stay’ were illiterate. About three fourth (72.5 %) of migrant agricultural labourers with stay of ‘more than one year’ were illiterate. These observations clearly show that greater proportion of industrial labourers were literate as compared to their counterparts in agricultural sector. This may be due to the requirements of industrial jobs. The other thing

which is highlighted by the data is that local labourers were more educated than their migrant counterparts.

**Family size among labourers:**

Table 3 depicts the distribution of labourers in the study sample according to the size of the family. The family size measured in terms of the mean number of family members of agricultural and industrial labour was comparable being 5.15 and 5.06, respectively.

Medium family size was observed among 60 per cent and 55 per cent of local agricultural and industrial labourers, respectively. The small family size (up to 4 members) was observed among 75 per cent of migrant agricultural labourers (with one year or less stay) whereas the same size of the family was found among industrial

**Table 2: Percent distribution of agricultural and industrial labourers by educational level**

Sr. No	Level of education	Agricultural labourers				Industrial labourers				Agricultural and industrial combined
		Local	Migrant		Local and migrant combined	Local	Migrant		Local and migrant combined	
			≤1 yr. stay	>1 yr. stay			≤1 yr. stay	>1 yr. stay		
n	%	n	%	n	%	n	%	n	%	
1.	Illiterate	20 (50.00)	28 (70)	29 (72.50)	77 (64.17)	5 (12.5)	25 (62.50)	26 (65)	56 (46.62)	133 (55.42)
2.	Literate	20 (50.00)	12 (30)	11 (27.50)	43 (35.83)	35 (87.5)	15 (37.50)	14 (35)	64 (53.33)	107 (44.58)
	-Up to 4 <sup>th</sup> class	6 (15.00)	4 (10)	6 (15)	16 (13.33)	2 (5)	5 (12.50)	5 (12.50)	12 (10)	28 (11.67)
	-Up to 6 <sup>th</sup> class	6 (15.00)	6 (15)	3 (7.50)	15 (12.5)	6 (15)	4 (10)	6 (15)	16 (13.33)	31 (12.92)
	-Up to 8 <sup>th</sup> class	3 (07.50)	2 (5)	1 (2.50)	6 (5)	12 (30)	5 (12.50)	3 (7.50)	20 (16.67)	26 (10.83)
	-Up to 10 <sup>th</sup> class	5 (12.50)	0 (0)	1 (2.50)	6 (5)	15 (37.5)	1 (2.50)	0	16 (13.33)	22 (9.17)

**Table 3: Per cent distribution of agricultural and industrial labourers by family size**

Sr. No	Family size	Agricultural Labourers				Industrial Labourers				Agricultural and industrial combined
		Local	Migrant		Local and migrant combined	Local	Migrant		Local and migrant combined	
			≤1 yr. stay	>1 yr. stay			≤1 yr. stay	>1 yr. stay		
n	%	n	%	n	%	n	%	n	%	
1.	Small family (Up to 4 members)	15 (37.5)	30 (75)	18 (45)	63 (52.50)	18 (45)	26 (65.00)	17 (42.25)	61 (50.83)	124 (51.67)
2.	Medium family (5-8 members)	24 (60)	10 (25)	21 (52.50)	55 (45.83)	22 (55)	13 (32.53)	21 (52.50)	56 (46.67)	111 (46.25)
3.	Large family (>9 members)	1 (2.5)	0 (0)	1 (2.50)	2 (1.67)	0 (0)	1 (2.50)	2 (5)	3 (2.50)	5 (2.08)
	Average family size	5.68	4.40	5.37	5.15	5.05	4.58	5.55	5.06	5.11

labourers. The migrant labourers with more than one year stay showed almost similar trend as was in case of local labourers. The reason may be the time gap for settlement in Punjab.

#### Income of labourers:

The information given in Table 4 shows that average monthly income of labourers was higher in industrial sector as compared to the same in agricultural sector on all the categories. The average monthly income of local labourers was Rs. 1862 in agricultural sector and Rs. 2968 in industrial sector while the same was Rs. 1514 and Rs. 2431 in case of migrant labourers with one year or less stay in agricultural and industrial sector, respectively. In case of migrant labourers with 'more than one year stay', the average monthly income was recorded to be Rs. 1620 in agricultural sector and Rs. 2675 in industrial sector. The higher income in industrial sector may be due to the higher wage rate and more employment in industrial sector as compared to the low wage and less employment in agricultural sector. These facts were also supported by the data that vast majority of industrial labourers belonged to the income range of Rs. 2000-4000 while in agricultural

sector, highest proportion belonged to the income range only of Rs. 1500-2000.

#### Levels of self-esteem:

The distribution of labourers according to the level of self-esteem is given in Table 5. It is clear from table that the level of self-esteem differed significantly in case of agricultural migrant labourers with one year or less stay. In this category high level of self-esteem (17.50%) was significantly lower in comparison to local agricultural labourers (55%) and migrant agricultural labourers with one year or less stay (52.50%). This showed that in agriculture sector, local and those migrant labourers who have more than one year stay enjoyed same level of self-esteem and significantly higher than the migrant labourers with 'one year or less stay'. Exactly, a similar trend could be observed in case of industrial labourers as was seen in agricultural sector. Only 25 per cent of industrial labourers with one year or less stay enjoyed high level of self-esteem while the same was 57.00 per cent and 55 per cent of local and migrant labourers with more than one year stay. This highlighted that duration of stay has its own role towards level of self-esteem. Longer the period of stay

**Table 4: Per cent distribution of agricultural and industrial migrant labourers according to their income**

Sr. No.	Monthly income	Agricultural sector						Industrial sector					
		Local		≤ 1 year stay		> 1 year stay		Local		≤ 1 year stay		> 1 year stay	
		n	%	n	%	n	%	n	%	n	%	n	%
1.	<1000	1	(2.50)	4	(10.00)	4	(10.00)	0	(0)	1	(2.50)	0	(0)
2.	1000-1500	6	(15.00)	16	(40.00)	16	(40.00)	0	(0)	6	(15.00)	1	(2.50)
3.	1500-2000	23	(57.50)	17	(42.50)	12	(30.00)	1	(2.50)	8	(20.00)	9	(22.50)
4.	2000-4000	10	(25.00)	3	(7.50)	8	(20.00)	39	(97.50)	25	(62.50)	30	(75.00)
5.	Average income	1862		1514		1620		2968		2431		2675	

**Table 5 : Levels of self-esteem among agricultural and industrial labourers**

Sr. No.	Respondents category	Levels of self-esteem				Total n (%)
		Low n (%)	Average n (%)	High n (%)		
<b>Agricultural</b>						
1.	Local	0 (0)	18 (45.00)	22 (55.00)	40 (100)	
2.	Migrant					
	≤ 1 year stay	0 (0)	33 (82.50)***	7 (17.50)	40 (100)	
	> 1 year stay	0 (0)	19 (47.50)	21 (52.50)	40 (100)	
	Total	0 (0)	70 (58.33)	50 (41.67)	120 (100)	
<b>Industrial</b>						
1.	Local	0 (0)	17 (42.50)	23 (57.00)	40 (100)	
2.	Migrant					
	≤ 1 year stay	0 (0)	30 (75.00)***	10 (25.00)	40 (100)	
	> 1 year stay	0 (0)	18 (45.00)	22 (55.00)	40 (100)	
	Total	0 (0)	65 (54.17)	55 (45.83)	120 (100)	

\*\*\*indicates significance of value at P=0.01

Levels of significance of difference between proportions (z-test)

in Punjab, higher is the level of self-esteem and *vice-versa*.

### Levels of social support:

Perusal of Table 6 shows that 52.50 per cent of the agricultural local labourers enjoyed high level of social support while the remaining 47.50 per cent of them showed average level of social support. This difference was statistically non-significant. Similar was the trend in case of agricultural migrant labourers with one year or less stay where 55 per cent of them had average level of social support and only 45 per cent showed high level of social support. In case of agricultural migrant labourers with 'one year or less stay' a significantly low proportion (27.50%) had high level of social support. Quite a similar

trend was observed in case of different categories of industrial labourers. Of industrial migrant labourers with one year or less stay only 32.50 per cent enjoyed high level of social support which was significantly lower than industrial local labourers (55%) and industrial labourers with more than one year stay' (57.50%). This revealed that lesser duration of stay provided lesser level of social support and *vice-versa*.

### Levels of total distress:

Table 7 presents the distribution of labourers by levels of total distress among them. In agricultural sector, as much as 40 per cent of local labourers, 37.50 per cent of migrant labourers with 'more than one year of stay' were suffering from low level of total distress. Only 7.50 per

**Table 6 : Levels of social support among agricultural and industrial labourers**

Sr. No.	Labourers category	Levels of social support			Total n (%)
		Low n (%)	Average n (%)	High n (%)	
<b>Agricultural</b>					
1.	Local	0 (0)	19 (47.50)	21 (52.50)	40 (100)
2.	Migrant				
	≤ 1 year	0 (0)	29 (72.50)**	11 (27.50)	40 (100)
	> 1 year	0 (0)	22 (55)	18 (45)	40 (100)
	Total	0 (0)	70 (58.33)	50 (41.67)	120 (100)
<b>Industrial</b>					
1.	Local	0 (0)	18 (45)	22 (55)	40 (100)
2.	Migrant				
	≤ 1 year	0 (0)	27 (67.50)***	13 (32.50)	40 (100)
	> 1 year	0 (0)	17 (42.50)	23 (57.50)	40 (100)
	Total	0 (0)	62 (54.17)	58 (45.83)	120 (100)

\*\* and \*\*\* indicate significance of values at P=0.05 and P=0.01, respectively

Levels of significance of difference between proportions (z-test)

**Table 7: Levels of total distress among agricultural and industrial labourers**

Sr. No.	Labourers category	Levels of total stress			Total n (%)
		Low n (%)	Average n (%)	High n (%)	
<b>Agricultural</b>					
1.	Local	16 (40)	21 (52.50)	3 (7.50)	40 (100)
2.	Migrant				
	< 1 year stay	15 (37.50)	25 (62.50)	0 (0)	40 (100)
	> 1 year stay	17 (42.50)	22 (55.00)	1 (2.50)	40 (100)
	Total	48 (40.00)	68 (56.67)	4 (3.33)	120 (100)
<b>Industrial</b>					
1.	Local	15 (37.50)	25 (62.50)	0 (0)	40 (100)
2.	Migrant				
	< 1 year stay	14 (35.00)	26 (65.00)	0 (0)	40 (100)
	> 1 year stay	14 (35.00)	26 (65.00)	0 (0)	40 (100)
	Total	43 (35.83)	77 (64.17)	0 (0)	120 (100)

Levels of significance of difference between proportions (z-test)

cent of local labourers and 2.50 per cent of migrant labourers with more than one year stay suffered from high level of total distress. The remaining proportions of labourers were suffering from average level of total distress in agricultural sector. In industrial sector, 37.50 per cent of local and 35 per cent each of the two categories of migrant labourers were found to be suffering from total distress while none was reported to be suffering from high level of total distress. However, it was prevailing with higher levels in agricultural sector as compared to the industrial sector.

### Effect of socio-economic and personal variable on distress:

This section of the paper deals with the various socio-economic and personal factors which play their role in causing distress among the labourers. These factors were identified through regression analysis for different categories of labourers.

Agricultural labourers:

Table 8 presents the results of regression analysis

for the three categories of agricultural labourers. It shows that among the local agricultural labourers, 69.56 per cent of the variation in total distress was explained by the independent variables included in the equation. The table further reveals that educational level of local labourers led to a significant decline in total distress. Similar was the effect of income, self-esteem and social support. This highlighted that in order to mitigate the distress among local agricultural labourers, the level of their education, income, self-esteem and social support be raised.

In case of migrant labourers with one year or less stay, the explanatory variables included in the equation explained 61.14 per cent of the variation in total distress. The effect of increasing level of income, duration of stay, self-esteem and social support was significantly negative on distress. While that of age, educational level and family size, it was non-significant. Similar trend was the observation noted in case of migrant agricultural labourers with more than one year stay.

Industrial labourers:

The analysis given in Table 9 indicates that regression

**Table 8: Effect of socio-economic and personal variables on distress among agricultural labourers**

Dependent variable : Total distress			
Variable	Regression coefficient		
	Local	Migrant ( $\leq 1$ year)	Migrant ( $> 1$ year)
Age (Years)	0.3712 (0.986)	0.2906 (1.315)	0.1897 (1.003)
Educational level	-0.1874** (2.196)	-0.1165 (1.209)	0.1423 (0.985)
Family size	0.1981 (1.009)	-0.0976 (0.855)	-0.2661 (1.205)
Income	-0.2169** (2.349)	-0.3213*** (3.176)	-0.3967*** (3.966)
Duration of stay	-	-0.1841** (2.116)	-0.2149*** (3.481)
Self-esteem	-0.2755*** (4.112)	-0.2401** (2.376)	-0.2672** (1.982)
Social support	-0.4163*** (5.631)	-0.3771*** (3.245)	-0.3909*** (4.270)
R <sup>2</sup>	0.6956	0.6114	0.6447

Note: figures in parentheses are calculated t-values

\*\* and \*\*\* indicate significance of values at P=0.05 and P=0.01, respectively

**Table 9: Effect of socio-economic and personal variables on distress among industrial labourers**

Dependent variable : Total distress			
Variable	Regression coefficient		
	Local	Migrant ( $\leq 1$ year)	Migrant ( $> 1$ year)
Age (Years)	0.2219 (1.257)	0.1867 (0.959)	0.1906 (1.009)
Education level	-0.1936** (2.257)	-0.1423 (0.814)	-0.1511 (1.322)
Family size	0.2164 (1.349)	-0.1045 (1.265)	-0.0852 (1.200)
Income	-0.2959*** (3.119)	-0.3651*** (4.218)	-0.4123*** (4.756)
Duration of stay	-	-0.2209** (2.119)	-0.2745** (2.396)
Self-esteem	-0.3724*** (3.351)	-0.3535*** (2.997)	-0.3324*** (4.126)
Social support	-0.4941*** (4.272)	-0.4103*** (4.111)	-0.4364*** (3.297)
R <sup>2</sup>	0.6226	0.5919	0.6064

Note: figures in parentheses are calculated t-values

\*\* and \*\*\* indicate significance of values at P=0.05 and P=0.01, respectively.

models, developed for each category of industrial labourers were quite powerful as they explained 62.26, 59.19 and 60.64 per cent of the variation in the distress among local industrial labourers, migrant industrial labourers with one year or less stay and those with more than one year stay, respectively. In case of local industrial labourers, the negatively significant regression coefficients of education, income, self-esteem and social support revealed that there would be a decline of 0.19, 0.30, 0.37 and 0.49 units in distress with a one unit increase in each of the above mentioned variables, respectively.

In case of migrant labourers with 'one year or less stay', the regression coefficients of income, duration of stay, self-esteem and social support were negatively significant indicating that a specific decrease in the distress is a must with one unit increase in these factors. Similar was the trend found in case of migrant labourers with 'more than one year stay'. The longer duration of stay of migrants appeared to reduce their distress.

Overall, it can be said that in case of local labourers, educational level, income level, self-esteem and social support emerged as the determining factors of distress while among the migrants, level of income, durations of stay, self-esteem and social support emerged as the determinants of distress.

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