

Antecedents and Health Consequences of Job Insecurity among Teachers

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Abstract

Job Insecurity is emerging as a growing threat to the careers of aspiring, meritorious and hardworking employees in our country due to various reasons such as high demand of jobs, and government's inability to meet such a high demand in a short period of time. This results in hiring of employees on temporary/contractual basis. This situation is especially bad among the teachers belonging to various government schools and colleges in Delhi. Our study investigated certain psychological causes for the feeling of Job Insecurity among teachers. Perceived Organizational Change and Role Ambiguity were studied as the potential antecedents of Job Insecurity. Detrimental impact of Job Insecurity on the Mental and Physical Health of such employees were also studied. A sample of 110 temporary/contractual/ad-hoc teachers belonging to MCD schools and several colleges from University of Delhi was used for this study. 'Partial Least Square' technique of 'Structural Equation Modeling' was applied using 'SmartPLS 2.0.M3' to understand the proposed relationships. Results show both Perceived Organizational Change and Role Ambiguity significantly contribute towards Job Insecurity, where the effect of Perceived Organizational Change was particularly high. Job Insecurity was found to negatively affect Mental and Physical Health of the employees. Mental effect in terms of stress and anxiety was found to be especially prominent.

Keywords: Job Insecurity, Mental Health, Physical Health, Perceived Organizational Change, Role Ambiguity

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1. Introduction

Job insecurity has been known to cause stress among the individuals exposed to it over a long period of time, leading to hostile consequences for health (Barling & Kelloway, 1996)³.

In simple terms, job insecurity as experienced by employees may be labeled as amalgamation of apparent threats concerning their job and a feeling of helplessness to counter those threats (Ashford, Lee & Bobko, 1989¹; Kinnunen, Mauno, Nätti, Happonen, 2000)²². Job insecurity is known to adversely impact health of individuals both in terms of physical and mental (Probst & Brubaker, 2001)²⁹. Job insecurity has been found to promote work-related stress among employees. Such higher levels of stress negatively impacts the levels of satisfaction with job that employees face and also their psychological well-being, in turn affecting psychological and physical health (De Witte, 1999)¹⁰. According to Sverke et al.(2002)³³, job insecurity is more detrimental towards mental state than the physical. However according to Sverke et al.(2002),there was some inconclusively towards establishing a relation between job insecurity and physical health.

Organizational change has also been known to influence the job insecurity feeling among the employees. They feel vulnerable

to significant changes to which they are powerless to influence. They either feel their potential skills getting redundant in the organization after the changes are introduced or may believe the changes to be so significant that they might find it difficult to adapt to them and may be forced to change the organization (Kets de Vries & Balazs, 1997). Kets de Vries & Balazs, (1997) coined the term "survivor sickness syndrome" which implies that employees may find themselves stressed and having a feeling of job insecurity even well after the changes are introduces in the organization.

It is important for us to study the antecedents and consequences of job insecurity security because of not only the negative significances it has for employees but also for the management and the organization. In the wake of growing job insecurity among employees, trade unions have stepped up their bargaining efforts in order to ensure long term job security for employees (Bolt, 1983)⁴. Also, the employers, who have for long ignored or underestimated the issue of job insecurity, have been steadily realizing the benefits for the organizations by providing long term job security to employees (Gutchess, 1985)¹⁶.

In spite of agreeing on the significance of job insecurity, academicians have largely ignored this topic, especially in Indian context. According to Greenhalgh and Rosenblatt (1984)¹⁵, job

security has mostly been considered or studied only as a secondary measure in most of the researches. Our research focuses on studying certain antecedents of job insecurity, i.e. Perceived Organizational Change and Role Ambiguity, and the health (mental and physical) consequences of job insecurity among the temporary/contractual or ad-hoc staff of teachers in schools and colleges in Delhi.

2. Literature Review

2.1 Perceived Organizational Change and Job Insecurity

Organizational change has been known to consist of several stages (Judson, 1991)²⁰. According to Lewin (1947)²⁵, organizational change consists of 3 stages, i.e. 1) introduction, 2) implementation and 3) stabilization. There are several such change models, all of which however imply that a change is required in a defective organization or system which undergoes change process in order to reach the enhanced state. Each such stages pose a challenge for the human resource department or the implementers (Crawford & Nahmias, 2010)⁷.

In order to reduce the job insecurity and stressful feeling among the employees, the employer may need to increase the incentives and salary at commensurate levels (Kotter, 1996). The problem however is that most of the schools and colleges where teachers serve on temporary basis are owned by the government, which have fixed incentives and salary, leaving no scope to increase it at the instance of the employer. In fact, the compensation and incentives given to temporary staff is significantly lower than the permanent staff, for the same level of work, adding to the stress levels and a feeling of job insecurity among the temporary staff.

Organizational change is considered as somewhat unforeseen that provokes emotional state of disbelief, shock, or risk (Cox, 1997)⁶. Employees, especially at the initial stages of the change are most probable to be flabbergasted and surprised by the change (Noer, 2009)²⁸. Thus, each level of change poses mental, physical and emotional challenges for the employees, as they feel that in the new and changes organization, their skills may be deemed to be obsolete and they may not be able to adapt to the changes within the desired time period. This may cause them to doubt the security of their job tenure even further.

Uncertainty is usually perceived as an aversive situation which individuals are inspired to lessen (Bar-Anan, Wilson, & Gilbert, 2009)². Lengthy stages of change and uncertainty are known to be damaging to the individuals. Similarly, job insecurity, when faced for a long period of time has been known to cause a variety of health issues (Burgard, Brand, & House, 2009)⁵.

2.2 Role Ambiguity and Job Insecurity

According to Greenhalgh and Rosenblatt (1984), job insecurity is not just a function of organizational change perception, but also the experiences of the employees which they face at the job. Ambiguity about the tasks desired to be performed at the job, and conflict among the roles are considered to be significant factors in explaining the job insecurity among the employees. Role ambiguity results in a feeling of lack of control among the employees, in turn making them feel insecure about the job they hold. Role ambiguity means deficiency of knowledge about work requirements and processes (Katz & Kahn, 1978)²¹. Role ambiguity results in anxiety and stress among the employees regarding their job, causing them to have a detrimental effect on the “psychological contract” with their management. This in turn results in them having a feeling of job insecurity.

2.3 Job Insecurity and Health

Uncertainty about one's job and the job insecurity associated with it have been known to affect the job performance and well-being of the employees. Such relation gets stronger, the longer the feeling of job insecurity has persisted.

Due to lack of studies examining the relationship between job insecurity and health, long term health effects resulting from job insecurity are unclear. According to Noer (1993)²⁷, in a study involving employees who narrowly escaped layoff, reported high levels of anxiety and stress, and a lower level of work performance among such employees. Dekker and Schaufeli (1995)¹¹ conducted a study among employees facing severe organizational change and found the job insecurity feeling in them affecting their mental and physical health, as well as lower levels of job performance. Heaney, Israel, and House (1994)¹⁸ found the perception of job insecurity to affect the health negatively and also to negatively impact the job satisfaction among employees both in long and short term.

3. Hypotheses

On the basis of the literature presented in above section, we propose the following hypotheses applicable for the contractual teachers of certain schools and colleges from Delhi which we studied:

H1: Perceived organizational change will be positively associated with the feeling of Job Insecurity

H2: Role ambiguity will be positively associated with the feeling of Job Insecurity

H3: Job Insecurity will have detrimental effects on Mental Health

H4: Job Insecurity will have detrimental effects on Physical Health

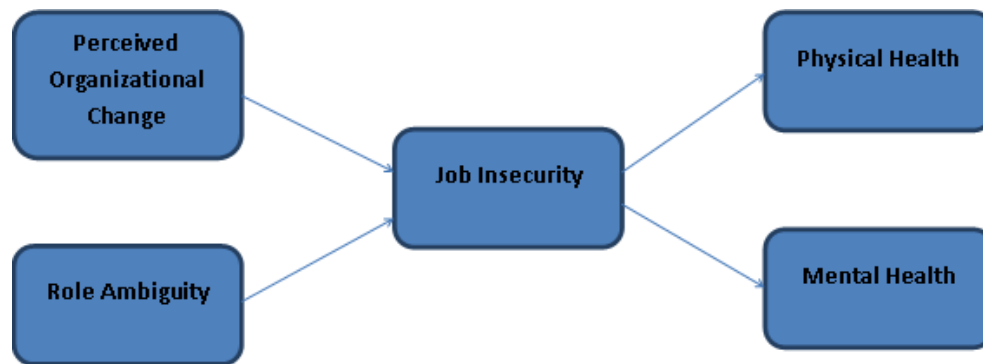


Figure 1. Ambiguity and Job Insecurity.

These hypotheses are presented diagrammatically in Figure 1

4. Research Method

4.1 Sample and Data Collection

As our study concerns the antecedents and consequences of Job Insecurity, the sample was needed taken from the employees who persistently faced issues regarding Job Insecurity. MCD schools and colleges of University of Delhi are known for employing a large number of contractual employees. This situation has gotten worse over a number of years despite the attempts made by government from time to time to fill these temporary vacancies with permanent ones. Around 26000 and 5400 teachers are known to be employed on contractual basis in MCD schools and DU colleges respectively.

Our sample consists of such teachers. In total, 110 responses were collected using Google Docs platform.

The descriptive profile of data collected is given in Table 1.

Table 1. (Demographic profile)

Demographic Characteristic		No. of responses	Percentage
Gender	Male	44	40
	Female	66	60
Age	20-30 years	75	68.18
	30-40 years	30	27.27
	40+ years	5	4.54

4.2 Instrumentation

Perceived organizational change was measured using a 2-item scale adapted from Rizzo, House, and Lirtzman (1970)³¹, which was measured on a 5-point scale ranging from 1-highly likely to 5-highly unlikely. Example of the item from the scale is “Our terms of employment will soon face major restructuring”.

Role ambiguity was measured using a 2-item scale adapted from Ashford, Lee, & Bobko (1989), which was measured on a 5-point scale ranging from 1-strongly disagree to 5-strongly agree.

Job insecurity was measured using 1-item- “How likely, in your opinion, is the probability that you will become unemployed in the near future?”, which has previously been used by De Witte, (1996). It was measured on a 5-point scale ranging from 1-highly likely to 5-highly unlikely.

‘Employee health’ was measured using 4-items (2-items for measuring Mental health & 2-items for Physical Health), which were adopted from SHC, i.e. the “Subjective Health Complaints Inventory” (Eriksen, Ihlebæk & Ursin, 1999)¹³. Participants responded the extent to which they had been suffering by usual health symptoms. The symptoms were measured on a 5-point scale ranging from 1 = “not at all affected” to 5 = “seriously affected”.

4.3 Data Analysis and Results

The relationships between the variables were assessed using structural equation modeling through partial least squares (PLS) approach. All the analyses in our study were conducted using SmartPLS 2.0.M3 (Ringle et al. 2005)³⁰. According to Hulland (1999)¹⁹, assessment and interpretation of a PLS model is a two-step process. In the first step, reliability and validity analysis is conducted for the measurement model. In the second step, the predictability and significance of the paths between constructs in the structural model is evaluated.

4.4 Evaluation of the SEM Model Requires Following Steps

Initially the Reflective models is analyzed wherein, internal consistency is calculated first, followed by calculating the reliability of the indicators proposed in the model, followed by testing for the convergent validity (AVE) and lastly testing the discriminant validity.

After the analysis of the reflective mode, we analyze the structural model on the basis relevance and significance of the relations between the variables. First, structural model is analyzed for any issues arising out of collinearity. Then relevance and significance of the relationships proposed in the structural model are analyzed. After this, R^2 (or coefficient of determination) value is calculated.

4.5 Internal Consistency (Composite Reliability) and Indicator Reliability

Cronbach (1951)⁸ devised a statistical method which divided the data in every possible 2 ways and relies on the average of the correlations of all such potential pairs. Such average is called Cronbach's alpha, α , which is considered to be a good measure of the reliability of the scale concerned.

Cronbach's α is:

$$\alpha = \frac{N^2 \overline{\text{Cov}}}{\sum s_{\text{item}}^2 + \sum \text{Cov}_{\text{item}}}$$

Following (Table 2) are the results of the Cronbach's α calculated for every scale, and sub-scale wherever applicable.

Table 2. Cronbach's α reliability Test

Variables	Cronbach's α
Mental Health	0.8811
Per.Org Change	0.8422
Physical Health	0.8494
Role Ambiguity	0.8617

The value of Cronbach's α shows the reliability of the overall scale. According to Kline (1999)²³, value of Cronbach's alpha of 0.8 or greater is considered to be acceptable for psychological tests such as Intelligence tests, however in the tests measuring the abilities, the value of greater than 0.7 is acceptable. Accordingly, all of our constructs meet this requirement.

4.6 Convergent Validity (Average Variance Extracted)

Convergent validity shows the magnitude to which a measure positively correlates with substitute measures of the same construct. In order to determine the convergent validity for a construct, Average variance extracted (AVE) is used.

The results of AVEs for different constructs and sub-constructs used in our model are presented in Table 3.

Table 3. Consistency (Composite Reliability) and Indicator Reliability

Variables	AVE
Job Insecurity	1
Mental Health	0.8811
Per.Org Change	0.8422
Physical Health	0.8494
Role Ambiguity	0.8617

As all of our constructs have AVEs > 0.5, we can say that such constructs and hence entire model meets the convergent validity requirement.

4.7 Discriminant Validity

Discriminant validity shows the uniqueness of a construct in comparison with other constructs on the basis experiential criteria. If discriminant validity for a construct is proven, that would mean that the construct is exclusive in the study concerned and measures the aspects not displayed by other variables in the model. Discriminant validity is widely evaluated using "Fornell-Larcker criterion" (Fornell and Larcker, 1981)¹⁴. "Fornell-Larcker criterion" relates the square root of each variable's AVE, whereby in order to established discriminant validity, it must be higher when compared to the maximum correlation with any other variable. This would imply that the variable under study would derive more variation with its accompanying indicators than with other variables.

Table 4 shows the application of Fornell-Larcker criterion on our model.

The square roots of the reflective variables' Average Variance Extracted are on the diagonal and the correlations among the variables in the lower left portion. For example, the reflective construct 'KS' has a value of 0.579 for the square root of its AVE, which needs to be compared with all correlation values in the row as well as the column of 'KS'. Accordingly, all of our constructs meet Fornell-Larcker criterion requirements and discriminant validity is established.

4.8 Assessment of structural model for collinearity issues

If a large correlations are found among different variables studied in a structural model, that would mean that more than one variable is explaining the same phenomenon, hence such high correlation is not desired. "Tolerance" is used in order to compute the "collinearity" among the variables. "Tolerance" basically

Table 4. Fornell-Larcker Criterion

Fornell-Larcker Criterion					
	Job Insecurity	Mental Health	Per.Org Change	Physical Health	Role Ambiguity
Job Insecurity	Single item construct				
Mental Health	0.391	0.939			
Per.Org Change	0.476	0.135	0.918		
Physical Health	0.338	-0.001	0.233	0.922	
Role Ambiguity	0.349	0.161	0.205	0.099	0.928

computes the extent of variance of one variable which is not explained by another variable. “Variance inflation factor or simply VIF is used to calculate the collinearity, which is the inverse of the “tolerance”.

The VIF is extracted from the square root of the VIF being the extent to which the “standard error” has been augmented due to the occurrence of collinearity. IBM SPSS Statistics software package. The tolerance and VIF are both provided in the regression analysis output of IBM SPSS Statistics software package. When it comes to the SEM using partial least square technique, a tolerance value of lesser or equal to 0.20 and a VIF value of greater or equal to 5 suggests a collinearity problem (Hair, Ringle, & Sarstedt, 2013)¹⁷. These values would suggest that an 80% or more variance in the indicator of the variable being studied is explained the remainder of the formative indicators related to the same variables.

We treat the values of tolerance which are greater than 0.2 or a VIF value of over 5.00 of a predictor variable to be suggestive of collinearity. If the values of VIF or tolerance suggest any collinearity issues, then the issue is addressed by either removing the problematic variables, or amalgamating the predictors into a single variable.

Table 5. Collinearity Assesment

Collinearity Assesment	
Construt	VIF
Perceived Org. Change	1.29
Role Ambiguity	1.12
Job Insecurity	1.72
Physical Health	1.16
Mental Health	1.21

In our model, none of the constructs show collinearity problem.

4.9 Valuation of the relevance and significance of the SEM relationships

Using partial least square algorithm of SEM, path coefficients, or the approximations are generated for the relationships proposed in the structural model. The values of such path coefficients vary between +1 and -1. As the value approaches closer to +1, it signifies a significantly (most of the times) positive relationships between two variables observed. Vice-versa is true for negative values approaching -1. Weak relationships are usually associated with values closer to zero, which are in almost the cases, non-significant. The actual decision regarding the significance of the path coefficient is contingent upon its standard error which is generated using “bootstrapping”. Standard error values obtained using bootstrapping permits evaluating the empirical t value.

If the t value is greater than the threshold value, we can conclude that at certain probable error, the path coefficient is significant. Generally used threshold values for two tailed tests are 1.65 which reflects a level of significance at 10%, 1.96 which reflects a level of significance at 5%, and 2.57 which reflects a level of significance at 1%.

Figure 2 shows the relevance of relationships of structural model, while Figure 3 shows the significance of such relationships by displaying the respective t values.

Significance and relevance results of the path coefficients from Table 6 show that Job Insecurity has detrimental effects for both physical and mental health of the teachers. The relation was especially found to be stronger with mental health.

Both Perceived Organizational Change and Role Ambiguity were found to be significant factors contributing towards the Job Insecurity. Perceived Organizational Change has a higher impact on the Job Insecurity perception.

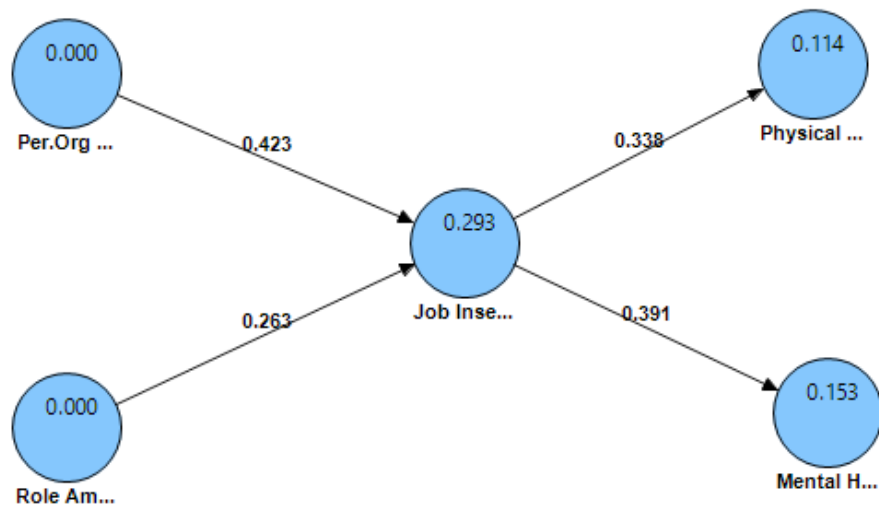


Figure 2. Perceived Organizational Change and Role Ambiguity-I.

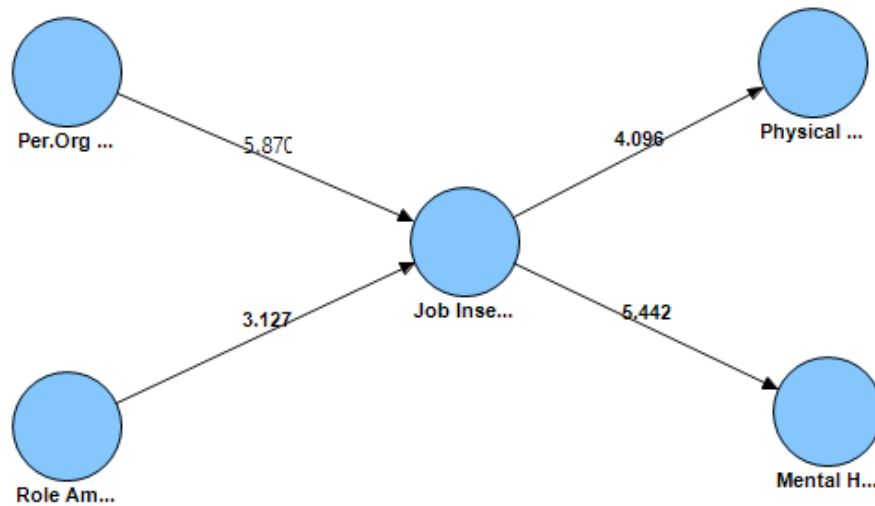


Figure 3. Perceived Organizational Change and Role Ambiguity-II.

Table 6. Significance testing results of the structural model path coefficients

Significance testing results of the structural model path coefficients			
	Path Coefficients	t values	Sig. Levels
Job Insecurity -> Mental Health	0.3914	5.4417	***
Job Insecurity -> Physical Health	0.3383	4.0962	***
Per.Org Change -> Job Insecurity	0.4226	5.8699	***
Role Ambiguity -> Job Insecurity	0.2626	3.1267	***

Note: NS= not significant

p<0.05, *p<0.01

4.10 Examining the Total Effects

In a complex structural model like ours, an endogenous construct may be explained by several constructs indirectly. Hence, to get a complete understanding of the structural model, it is important to know the relevance and significance of the relationships between difference exogenous constructs and endogenous constructs, which is explained by the Total Effect of a particular exogenous construct on target endogenous construct. Total Effect is the aggregate of the “direct effect” and all “indirect effects” linking two constructs. PLS uses the bootstrapping methodology (Efron & Tibshirani, 1986)¹² in order to assess the standard errors, which evaluates the significance of the structural coefficients.

Table 7 displays the Total Effects and their significance (at 5% level) for each exogenous construct on each endogenous construct.

Results of Total Effects from Table 7 show Mental Health is most affected by the Job Insecurity. Perceived Organizational Change and Role Ambiguity were also found to have a significant total effect on the Mental Health and Physical Health of the employees, however, as our study does not focus on such relation, it is deemed out of scope of our study and would not be interpreted.

Coefficients of determination (R^2) results, representing the “exogenous latent variables” collective impact on the “endogenous latent variable”, are presented in Table 8. R^2 is a measure which suggests the predictability of the constructs involved in a model. It is calculated as the squared correlation among the definite values and the projected values of a particular endogenous construct.

R^2 results suggest that 29.3% of Job Insecurity perception is explained by Perceived Organizational Change and Role

Ambiguity combined. In turn, Job insecurity explains 15.3% and 11.4% of the detrimental effects of Job Insecurity perception on Mental and Physical Health respectively.

Table 8. Coefficients of determination (R^2) results

Constructs	R Square
Job Insecurity	0.2929
Mental Health	0.1532
Physical Health	0.1145

5. Discussion

Teachers and lecturers of several government colleges in Delhi have been living a life filled with ambiguity. Ever changing laws and regulations of the government and long pending court judgments are unable to bring any relief to such teachers. On one hand thousands of contractual teachers in government schools are reaching the maximum permissible limit to be teaching as temporary employees, on the other hand, there are thousands of ad-hoc lecturers teaching in government colleges for years, someone of who ironically are closer to retirement age.

Such situations bring a miserable situation for such teachers which not only affects their well-being and health, but also impact their family decisions and relations.

Our study focused on certain factors which potentially impact the job insecurity for such teachers, and the consequences of this job insecurity on their mental and physical health.

It was found that both Perceived Organizational Change and Role Ambiguity significantly contributed to the feeling of Job Insecurity among the teachers, however the contribution of Perceived Organizational Change was much higher.

Table 7. Significance testing results of the total effects

Significance testing results of the total effects			
	Path Coefficients	t values	Sig. Levels
Job Insecurity -> Mental Health	0.3914	5.4417	***
Job Insecurity -> Physical Health	0.3383	4.0962	***
Per.Org Change -> Job Insecurity	0.4226	5.8699	***
Per.Org Change -> Mental Health	0.1654	3.9609	***
Per.Org Change -> Physical Health	0.143	3.277	***
Role Ambiguity -> Job Insecurity	0.2626	3.1267	***
Role Ambiguity -> Mental Health	0.1028	2.5956	***
Role Ambiguity -> Physical Health	0.0888	2.2256	***

Note: NS= not significant

p<0.05, *p<0.01

This can be explained by the frequent changes in the regulations governing the terms of employment that government and its agencies bring about. A recent example of this is that a plea has been filed with Delhi High Court in order to decide the fate of appointment of around 26000 teachers teaching in MCD schools on contractual basis, at a fraction of salary compared to the permanent staff. Similarly, around 4500 ad-hoc teachers teach in various colleges of University of Delhi, and both High Court and UGC keep coming up with ambiguous measures to fill these vacancies, but to no avail. Such significant and unpredictable changes loom over the lives of such temporary teachers which makes them feel highly secure regarding the future of their job. These results are in line with Ashford, Lee & Bobko (1989).

Role ambiguity has also been found to significantly promote Job Insecurity. It is evident that there is no concrete role a temporary teacher has to perform persistently, be it a school or a college teacher. As temporary teacher are under a constant fear of losing their job at any time without a notice, they feel more obliged to do any work assigned to them by the authority, even if it doesn't fall under the specified tasks which they are required to perform under the employment contract. Hence, such employees are likely to feel more insecure about the future of their job. These results are also in line with Ashford, Lee & Bobko (1989).

Finally, Job Insecurity was found to have a detrimental effect on the Mental and Physical Health of the employees. Our results show that a feeling of job insecurity has a more significant impact on the mental health of the teacher when compared to its impact on physical health. Employees constantly living under the fear of losing their job are likely to face consistent stress and anxiety, which in turn impacts their overall physical health resulting in lethargy, lack of time devoted to exercises, in turn sprouting several other diseases such as diabetes, hyper tension etc. These results are in line with Størseth, (2006)³².

Organizational and government authorities need to take a note of this study and device more concrete plans in order to stabilize the careers of their employees by filling all the temporary vacancies as soon as possible. This should be done not only for the sake of health and well-being of their employees but also to enhance the performance of their organizations. It has been found that persistent Job Insecurity results in lower level of organizational commitment and lower levels of job performance (Lim, 1996)²⁶.

Our study has several limitations which need to be addressed through further and more comprehensive study. Our study is a static one, which does not cover the analysis of responses over a longer period of time. According to Ashford et al., (1989), Job Insecurity has varying outcomes over a period of time. In order to gauge the exact impact, a longitudinal study is required.

Secondly, our study does not consider the age factor of the employees and the duration of their contractual status. These

factors are known to bring changes in the relation between Job Insecurity and employees' well-being, whereby older employees or those who have been working on contractual basis for several years or decades have been known to have significantly lower well-being (Witte, 1999)³⁴. More such study is required in Indian context.

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