**Intramural Project**

**SANJAY GANDHI POSTGRADUATE INSTITUTE OF MEDICAL SCIENCES, LUCKNOW**

**PART – 1: GENERAL INFORMATION**

**Project Title: Work-Life Balance (WLB) among Employees in Health Care Sector: A Study of Hospitals in Lucknow**

**Investigators:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Name, Designation & Qualifications** | **Departmental Tel Nos. & Email ID** | **Signature** |
| **Principal investigator** | Dr. Anup Kumar  Assistant Professor**,** Dept of Biostatistics and Health Informatics, SGPGIMS | 8004221413  [anup.stats@gmail.com](mailto:anup.stats@gmail.com)  [anup@sgpgi.ac.in](mailto:anup@sgpgi.ac.in) |  |
| **1. Co-PI/Co-Guide /Collaborators** | Prof. C. M. Pandey  Head, Dept of Biostatistics and Health Informatics,  SGPGIMS | 8004904476  [cmpandeylko@yahoo.com](mailto:cmpandeylko@yahoo.com) |  |
| **2.Co-PI/ Collaborator** | Prof. Uttam Singh  Dept. of Biostatistics and Health Informatics  SGPGIMS | 8004904477  [uttam@sgpgi.ac.in](mailto:uttam@sgpgi.ac.in) |  |

Total Cost (Rs.):Rs 268650

Project summary including clearly state objectives (Not Exceed 250 words):

Due to recent developments in society, work-life balance is an issue for many institutes and its workers. Research on this topic is very recent and many different terms are used to describe and measure this complex phenomenon. Some researcher considers a balance as a certain state or moment in time which can be measured in terms of time, energy, and satisfaction with work and family roles. The aim of this study, however, is not to measure a work-life balance but to understand how doctors and nurses and paramedical staff experience this process. Based on review of literature, empirical study and analysis of reports of news papers and articles, it has been observed there is an increasing trend for organizations to implement more family friendly policies such as five day work week, flextime, family leave, and employee assistance programs to improve employee morale and productivity by reducing absenteeism and turnover. All these can be classified under policies, benefits and services. Policies cover the formal and informal ways that employees’ work and leave schedules are handled, including part-time work, job sharing, flexi -time and parental/family leave.

**Objectives:** The study has the following objectives which are as follows:

* To identify the most critical factors related to work-life balance in hospitals;
* To assess the impact of work-life balance initiatives on Job satisfaction and employee well-being;
* To determine the WLB scores among doctors and nurses/paramedical staff.

Copy of the Departmental Research Committee Recommendation :

Copy of the Ethics committee submission certificate:

(Head of Department will be responsible for periodic monitoring of the patients)

**PART – 2: TECHNICAL DETAILS**

**Project title: *Work-Life Balance (WLB) among Employees in Health Care Sector: A Study of Hospitals in Lucknow***

**Statement of the Problem**

As the saying goes – “Health is Wealth”, health is considered as the most important phenomenon in today’s world which determines the wealth of the country at large. The health care sector in India is one of the largest economic and fastest growing professions. In order to create a balance between the provision and reception of health care, various strategies have been worked out which makes this sector effectively by health consciousness among people & welfare schemes. Doctors and nurses play the major role in health care sector and are the first ones who are thought about when we talk about health care and thus it is necessary that their needs have to be taken care and a congenial atmosphere is created for them to work with utmost job satisfaction and content, the result of which would be a high quality care.**(Lakshmi, Ramachandran&Boohene, 2012)**

In terms of Indian context, the concern over work-life balance is gradually becoming a common talk. When employees go back to their homes, they should not carry any organizational stress with them. An individual has two roles to play- personal and professional; each role having different set of demands. When such role demands overlap, multiple problems are faced leading to losses for all concerned: the individual, the family, the organization and the society.In today’s phase, the demand for doctors and nurses is also increasing not only because of the attractive salary and job security but also because of the care they provide thus making a difference in others’ lives which is generally not found in many other careers **(Neates 2010)**. The role of doctors and nurses have expanded from a health care provider to Health educator, Diagnostic assistant, Post care supporter, Health advisor, Physicians, Assistant, Operation Theatre Assistant, Health Counselor, Follow up, Health promoter, Administrator, Health researcher, Provide appropriate reassurance to patients and family members, Health Supervisor, Maintenance of Health Reports, Records &Documents. Other reasons for slowing down of the doctors and nurses population is mental stress and work pressure which leads to dissatisfaction. Factors that lead to mental stress and work pressure are improper work life balance, physical health or fitness, improper working conditions, discrimination, distrust and unlimited work load **(Lambert, Hoga&Altheimer, 2010).** Emigration is also considered as a contributing factor to the increasing demand for this profession**(K.May, 2010).**

In this context related to health care sector, there is urgency to investigate the causes of work-life imbalance which bring hindrances in one’s paid and non-paid domain. There is also need to know the initiatives being provided to doctors and nurses and suggest valuable ways so that there is lesser chance of conflict between the professional and personal life.

**Conceptual Framework**

How and why have work-life balance and the encroachment of paid work into employees’ own time become major public issues? This ongoing debate may not be entirely due to, but it has been substantially ignited and shaped by, the publication in **1991 of Juliet Schor’s The Overworked American**. This book became an academic best seller in the USA. It seemed to be telling Americans things that they like to hear – that they are working too long and too hard for their own good, and that they ought to ease up. Rather than actually easing up, it appears that Americans prefer to congratulate themselves on their selfless sacrifice. As Schor’s thesis became known internationally, overwork was identified as a problem throughout the modern world **(Garhammer, 1998; Zuzanek et al., 1998)**, and overwork has become established as the virtually uncontested source of work-life balance problems.

The work-life balance terminology has been adopted only during the last 20 years, but the issue is much older. How married women workers balance their “two roles” has been an issue since their labour market participation began to rise following the Second World War. The problems of workers on shifts, or unsocial hours as these schedules came to be described, have been recognised and investigated since the 1950s. However, since the publication of Schor’s book, work-life balance has been presented as a general problem affecting men as well as women, and irrespective of whether their normal hours of work are particularly unsocial. Schor offered two principal explanations of why Americans were overworking. She was critical of how workers had become victims of a work-and-spend culture, but her main strictures were reserved for employers who were accused of abusing their labour market power to over-ride workers’ interests. An implication of Schor’s diagnosis is that workers need protection either through collective bargaining and agreements, or by law – statutory ceilings on working time, as in the EU’s 48-hour directive. Regulation, it is claimed by some, is the route to an optimal work-life balance. This approach seems plausible. It certainly seems to be the case that labour market regulation leads to aggregate reductions in paid working time. “Less work” has been a consistent trade union demand throughout the history of collective bargaining and in the enlarged (post-2004) EU mean reported hours of work are longest in those countries (the UK plus the new post-2004 member states) where labour market regulation is weakest. However, is regulation really the key to achieving an optimal work-life balance? Or, contrary to the current conventional wisdom, are the least regulated economies and labour markets (as in the USA) producing the optimal outcomes? Certainly, the “knowledge” developed by economists about how market forces are the best mechanism for taking different interests into account and achieving optimal outcomes has tended to be disregarded. Another possibility, more consistent with the evidence and analysis that follow, is that presenting the options along a continuum from tight to zero regulation has become outdated, and that the issue today is not whether to regulate but exactly what the regulations should be. **(Roberts, 2007)**

The concept of work-life balance is not new; it can be traced back from the early 1960s. During the 1960s and 1970s, employers considered work-life mainly an issue for working mothers who struggled with the demands of their jobs and raising children. Throughout this period and into the mid-1980s, the US government had the major impact in the field, as reflected by the Presidential Conference on Families, the Pregnancy Discrimination Act, and the Quality of Employment Survey.

During the 1980s, recognizing the value and needs of their women contributors, pioneering organizations such as Merck, Deloitte and Touche, and IBM began to change their internal workplace policies, procedures and benefits. The change included maternity leave; employee assistance programs (EAPs), flextime, home-based work, and child-care referral. During the 1980s men also began voicing work-life concerns. By the end of the decade, work-life balance was seen as more than just a women’s issue, affecting men, families, organizations and cultures. **(Bird, 2006)**

**Overview of Literature**

The expression work-life balance has been present in academic journals and popular press since the last two decades. Nevertheless, though referring often to work-life balance, the concept has not been closely studied or defined **(Greenhaus, Collins, & Shaw, 2003)**. Besides, empirical studies that often mention it, do not differentiate it from other terms used in the work-life field **(Saltzstein, Ting, & Saltzstein, 2001; Sumer & Knight, 2001; Thompson, Beauvais, & Lyness, 1999)** and there is no unanimity in what it is. Over the past years there was a change in terminology from work-family to work-life balance, thus acknowledging the importance of other spheres in life besides family and diversity of the current world, where people occupy a variety of roles and pursue a multitude of goals, which might not include that of building a family. Various authors **(Greenhaus et al., 2003; Grzywacz & Carlson, 2007; Kalliath & Brough, 2008)** voice the importance of establishing a specific definition of work-life balance to deepen current research; gain a better understanding of its role as an outcome variable or as means of comparison of the experienced work-life balance among different groups of employees and organizations. Various authors attempted to categorize its different conceptualizations. **Carlson and Grzywacz (2008)** classify theorizing of work-life balance into three categories: equality, fit and role performance. The equality perspective views both domains as equal and suggest that in order to achieve the balance one should distribute his/her resources, like attention, time, psychological involvement equally between the two spheres**(Ayree&Luk, 1996; Greenhaus, Collins, & Shaw, 2003; Kirshmeyer, 2000; Marks &Mac Dermid, 1996)**. The fit perspective is balance that does not only reflect the investments one makes, rather individuals’ satisfaction with different roles. Therefore balance investment in a role is done according to one’s values **(Kofodimos, 1993; Lambert, 1990)** and is evaluated through an individual’s affective appraisal of his role performance across a variety of domains **(Milkie & Peltola, 1999; Sheldon & Niemiec, 2006)**. Finally, the role performance perspective puts emphasis on the social basis of work-life balance **(Grzywacz & Carlson, 2007)**. It suggests that an individual reaches work-life balance through the negotiation and agreement on expectations with both the work and home partner. Thus, they extend the concept beyond the individual and allow for better assessment, beyond self-report, of observable behaviors. In a recent publication **Kalliath & Brough (2008)** took a different approach in their attempt to understand the conceptualizations of work-life balance. They reviewed the six more common conceptualizations of work-life balance that according to them focus on : 1. multiple roles **(Greenhaus, Collins, & Shaw, 2003)**; 2. equity across multiple roles (ibid); 3.between multiple roles **(Clark, 2000; Kirshmeyer, 2000)**;4. Fulfillment of role salience between multiple roles (Greenhaus&Allen, in press); 5. A relationship between conflict and facilitation **(Grzywacz& Bass, 2003)**; and 6. perceived control between multiple levels **(Fleetwood, 2007)**. They emphasize the positive meaning of “good balance” mentioned in the definitions, the change of level of balance over time, depending on the life stage one is in and the demands that are faced. The overview of the definitions brings us to the conclusion that besides the mentioned above characteristics, the following is important: good performance in a role; not only time, but also energy and commitment are essential, together with reaching an agreement over role expectations with the significant others. Besides, personal freedom to decide where and how to work and the importance of following own priorities in doing soare emphasized. **Greenhaus, Collins and Shaw (2003)** found that employees spending more time on family (from the total time available) experienced a higher level of quality of life, followed by those who spent equal amount of time on both domain and finally those who spent more time on work. Therefore, the perception of balance as an equal distribution of resources between the two domains does not seem to reflect well the reality.**Rapoport et al. (2002)** propose to use the term work-life integration instead of balance to encompass different parts of life and their integration depends on one's priorities, which not necessarily need to demand equal amount of personal resources, as time and energy. Therefore by integrating different parts of life independent of the time allocated to them, both men and women should be able finding satisfaction about their respective lives.

**Relevance of the Study**

Due to recent developments in society, work-life balance is an issue for many workers

**(Kossek, Lewis, Hammer, 2010)**. Research on this topic is very recent and many different

terms are used to describe and measure this complex phenomenon. Some researcher consider a balance as a certain state or moment in time which can be measured in terms of time, energy, and satisfaction with work and family roles **(Marks and MacDermid’s, 1996; Kirchmeyer, 2000; Greenhaus, Collins, Shaw, 2003)**. The aim of this research, however, is not to measure a work-life balance but to understand how doctors and nurses experience this process.

**Applicability of the Study**

Based on review of literature, empirical study and analysis of reports of news papers and articles, it has been observed there is an increasing trend for organizations to implement more family friendly policies such as five day work week, flextime, family leave, and employee assistance programs to improve employee morale and productivity by reducing absenteeism and turnover. All these can be classified under policies, benefits and services. Policies cover the formal and informal ways that employees’ work and leave schedules are handled, including part-time work, job sharing, flexi -time and parental/family leave.

**Research Questions:** Based on the significant research gap in the literature carried out on work-life balance in health care sector, following research questions has been formulated:

1. What are the major factors that influence work-life balance of doctors and nurses/paramedical staff working in the hospital?
2. What are the various work life balance policies being provided for doctors and nurses/paramedical staff?
3. Is there any significant impact of work-life balance initiatives on Job satisfaction and employee well-being?

**Objectives of the Study:** The study has the following objectives which are as follows:

1. To identify the most critical factors related to work-life balance in hospitals;
2. To assess the impact of work-life balance initiatives on Job satisfaction and employee well-being;
3. To determine the WLB scores among doctors and nurses/paramedical staff.

**Research Design:** Research Design for the study is divided into the following parts:

**Scope of the Study:** The present study reflects the existing work-life balance policies and its impact on personal and professional life of doctors and nurses working in hospitals in Lucknow District.

**Type of Study:** The present study falls under the category of causal research in which the researcher wants to explore the impact of work-life balance initiatives on doctors and nurses/paramedical staff paid and non-paid domain.

**Place of Study:** The study confined to Lucknow District only.

**Population:** The total population of this study shall comprise all those doctors and nurses/paramedical staff of SGPGIMS, KGMU, RMLU and selected Private hospitals who are working in Lucknow District. The selected private institutions would be among following eight institutes wherever we get permission from their administration .

1. Sahara Hospitals 2. Saraswati Medical college, 3. Era University, 4. Intergral University, 5. Career Institute of Medical Sciences, 6. Sri Ramakrishna Math &  
Ramakrishna Mission Sevashrama, 7. Career Institue of Medical Sciences and Hospital and 8. TS Mishra Medical College and Hospital.

(As on August 2018).

**Method Design:**

**Type of Data:** Primary and Secondary data would be used in the present study.

**Sources of Data Collection:** The relevant data would be collected from two sources i.e. primary and secondary sources.

**Methods of data collection:** Since the study is qualitative in nature and mainly based on primary sources for specific purpose of addressing the problem. Primary Data would be collected by visiting the hospitals of select public and private banks in Lucknow District.

**Questionnaire:** An integrated digital questionnaire is prepared compiling the work-life balance questionnaire contents with demographic information of doctors and nurses/paramedical staff working in hospital.

**Personal Interviews:** For in depth study, personal interviews would also be arranged with doctors and nurses/paramedical staff working in hospital**.**

**Observation:** For cross checking of facts the spot observation method would also be introduce in the study.

**Secondary Information:** Secondary Data would be collected from published data and various journals, Reports Official Statistics, Different books, Magazines, Research Papers, Reports, Articles, publications. Internet and electronic data would also be concerned as the source of secondary information.

**Development of Measurement and Scaling Technique:** The study uses the three Levels of measurement namely nominal, ordinal and interval scale. The study mainly concerned with identification of existing work-life balance policies in hospitals. Hence, the scholar planned to use Itemized Scale (Likert Scale) to indicate work-life balance and a degree of satisfaction or dissatisfaction with each of the statement of series about the stimulus objects.

**Sampling Strategy:**

**Sampling Frame:** The total population of this study shall comprise all those doctors and nurses/paramedical staff of SGPGIMS, KGMU, RMLU and select Private Institution/hospitals who are working in Lucknow District.

**Sampling Unit:** The sampling unit shall consist of **03** public and **04** private institution/hospitals (Total **07** ) in Lucknow District.

**Sample size determination:** For determining the sample size of 303 for the study following formulas have been adopted:

**Table for determining Sample Size when the characteristic of Interest is a proportion**

**Sample Size for a 95 Percent Confidence Level when Parameter in Population**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample Size for a 95% confidence level when parameter in population is assumed to be over 70% and under 30%** | | | | |
| Size of Population | +1%Point | +2%Point | +3%Point | +5%Point |
| 1000 | a | a | 473 | 244 |
| 2000 | a | a | 619 | 278 |
| 3000 | a | 1206 | 690 | 291 |
| 4000 | a | 1341 | 732 | 299 |
| **5000** | **a** | **1437** | **760** | **303** |
| 10,000 | 4465 | 1678 | 823 | 313 |
| 20,000 | 5749 | 1832 | 858 | 318 |
| 50,000 | 6946 | 1939 | 881 | 321 |
| 1,00,000 | 7465 | 1977 | 888 | 321 |
| 5,00000 to ∞ | 7939 | 2009 | 895 | 322 |

**Is Assum Size of Population** \_**1% Point** \_**2% Points** \_**3% Points** \_**5% Points**

**\*a** in these cases, more than 50% of the population is required in the sample, since the normal

Approximation of the hypergeometric distribution is poor approximation in such instances, no sample value is given. Source: Lin, Nan, Foundations of Social Research (New York: McGraw-Hill, 1976),

**Design Effect**: 303\*1.5 = **455**. ; Assuming 10% 455\*.10 = **45 non sampling error** (non response, wrong information etc.)

**Total sample size =** 455+45**= 500**

**Statistical Analysis:** Data would be analyzed by adopting suitable statistical techniques and tools such as:

* **Structural Equation Modelling:** Structural Equation Modelling (SEM) is a tool for analyzing multivariate data. It is also called simultaneous equation models, are multivariate (i.e., multi equation) regression models. Structural equation models go beyond ordinary regression models to incorporate multiple independent and dependent variables as well as hypothetical latent constructs that clusters of observed variables might represent. They also provide a way to test the specified set of relationships among observed and latent variables as a whole, and allow theory testing even when experiments are not possible. These structural equations are meant to represent causal relationships among the variables in the model. As a result, these methods have become ubiquitous in all the social and behavioral sciences.
* **Cluster Analysis:** Cluster Analysis is a convenient method for identifying homogenous groups of objects called clusters. Objects (or cases, observations) in a specific cluster share many characteristics, but are very dissimilar to objects not belonging to that cluster. Cluster analysis is a major technique for classifying a ‘mountain’ of information into manageable meaningful piles. It is a data reduction tool that creates subgroups that are more manageable than individual datum. It is an exploratory data analysis tool used for organizing observed data (e.g. people, things, events, brands, companies) into meaningful taxonomies, groups, or clusters, based on combinations. It maximizes the similarity of cases within each cluster while maximizing the dissimilarity between groups that are initially unknown. This technique used for combining observations into groups such that:

1. Each group is homogeneous or compact with respect to the characteristics i.e. observation in each group is similar to each other.
2. Each group should be different from other groups with respect to the characteristics i.e., observations of one group should be different from the observations of others groups.

* **Confirmatory Factor Analysis** (**CFA**): It is a special form of [factor analysis](http://en.wikipedia.org/wiki/Factor_analysis), most commonly used in social research. It is used to test whether measures of a [construct](http://en.wikipedia.org/wiki/Construct) are consistent with a researcher's understanding of the nature of that construct (or factor). As such, the objective of confirmatory factor analysis is to test whether the data fit a hypothesized measurement model. This hypothesized model is based on theory and/or previous analytic research. In confirmatory factor analysis, the researcher first develops a [hypothesis](http://en.wikipedia.org/wiki/Hypothesis) about what factors he believes are underlying the measures he has used (e.g., "[Depression](http://en.wikipedia.org/wiki/Depression_(mood))" being the factor underlying the [Beck Depression Inventory](http://en.wikipedia.org/wiki/Beck_Depression_Inventory) and the [Hamilton Rating Scale for Depression](http://en.wikipedia.org/wiki/Hamilton_Rating_Scale_for_Depression)) and may impose constraints on the model based on these [a priori](http://en.wikipedia.org/wiki/A_priori_(epistemology)) hypotheses. By imposing these constraints, the researcher is forcing the model to be consistent with his theory.
* **References**

Atkinson, C. and Hall, L. (2009), “The role of gender in varying forms of flexible working”, Gender,

*Work and Organization, 16* (6), 650-66.

Aziz, S. & Cunningham, J. (2008).Workaholism, work stress, work-life imbalance: exploring gender’s

role. *Gender in Management: An International Journal*, *23*(8), 553-566.

Bailyn, L., Drago, R., &Kochan, T.A. (2001).*Integrating work and family life: A holistic approach.*

A Report of the Sloan Work –Family Policy Network.MIT Sloan School of Management, Boston M.A.

Baral, R. (2009).Examining Antecedents of Work-Family Enrichment and its Effect on Individual, Family and Organizational Outcomes.*Unpublished Doctoral Dissertation,*  IIT Bombay.

Clark, S.C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations,*

*53(6),* 747-770.

Cooper, C.L. (1998), “The changing nature of work”, *Community Work and Family, Vol. 1* No. 3,

pp. 313-7.

Cooper, C.L. (1999). Can we live with the changing nature of work? *Journal of Managerial Psychology,*

*14*: 569-72.

De Bruin, A. & Dupuis, A. 2004.Work-life balance?Insight from non-standard work.*New Zealand*

*Journal of Employment Relations.*29(1): 21-37.

Deery, Margaret and Leo Jago (2009). A framework for work-life balance practices: Addressing the needs of tourism industry, *Tourism and Hospitality Research,92*(2) 97-108, 65- 93.

Frone MR (2003) Work-family balance. In Quick JC, Tetrick LE (eds) *Handbook of occupational health*

*psychology.* American Psychological Association, Washington, DC, pp 143–162.

Galinsky, E., Bond, J. and Friedman, D. (1996). The role of employers in addressing the needs of

the needs of employed parents. *Journal of Social Issues*, *52*, 111-136.

Garhammer, M. (1998). Time pressure in modern Germany, *Society and Leisure, 21*, 327-52.

Ghalawat, S. and Dahiya, P. (2010). Work-Life Balance and Organisation Practices- A Study of Selected Bank in Sirsa, *KAIM Journal of Management and Research*, *3*(1), 94-101.

Grant-Vallone, E.J. & Donaldson, S.I. (2001). Consequences of work-family conflict on employee

Well- being over time. *Work and Stress, 15* (3), 214-226.

K. May, *Government moving on disability crisis: PS ‘wellness’ strategy aims to take stigma out of*

*mental illness, get workers treated faster*. Retrieved June 15, 2010, from<http://www.ottawacitizen.com/health/Government+moving+disability>+crisis/2682893/story.html

Kossek, E.E., Lautsch, B.A. (2008). *CEO of Me. Creating a life that works in the flexible job age.* New

Jersey: Wharton School Publishing.

Lambert, S. (2000). “Added benefits: the link between work-life benefits and organizational citizenship”,

*Academy of Management Journal*, *Vol.43,* No.5, pp.801-815.

Lambert, E. G., Hogan, N. L.&Altheimer, I. (2010).An exploratory examination of the consequence

of burnout in terms of life satisfaction, turnover intent, and absenteeism among private correctional Staff.*The Prison Journal*, 90*(1),* 94-114.

Lakshmi, K.S., Ramachandran,T. &Boohene,D. (2012). Analysis of Work Life Balance of

Female Nurses in Hospitals - Comparative Study between Government and Private Hospital in Chennai, TN., India. *International Journal of Trade, Economics and Finance,* 3*(3),* 213-218*.*

Lobel, S.A. (1991) Allocation of investment in work and family roles: Alternative theories and

implications for research. *Academy of Management Review*, *16(3)*, 507-521.

Milkie, M.A., &Peltola, P. (1999).Playing all the roles: gender and the work-family balancing act.

*Journal of Marriage and the Family, 61(2),* 476-490.

Morris, M. L. and Madsen, S. R. (2007). “Advancing work-life integration in individuals, organizations,

and communities”, *Advances in Developing Human Resources. Vol. 9*, pp. 439-454.

Naithani, P. &Jha, A.N. (2009). An empirical study of work and family life spheres and emergence of

work-life balance initiatives under uncertain economic scenario, *Growth - MTI, 37 (1),* 69-73.

Neates, M. (2010).Fit for LIFE at the Western Australia Police.*RCMP Gazette,* 72*(1)*, 22-23.

Ramachandra Aryasri, A., &SumanBabu, S. (2007). “Work-Life Balance - A holistic Approach”,

*Siddhant - A Journal of Decision Making, Vol.7* No1, pp.1-11.

Roehling, P. V., Roehling, M.V., and Moen, P. (2001). The relationship between work-life policies and

practices and employee loyalty: A life course perspective, *Journal of Family and Economic Issue, 22* (2), 140-170.

Sand, J. and Harper, T.L. (2007). Family- Friendly Benefits and Organizational Performance, *Business* *Renaissance Quarterly, 2,* 107-126.

Scandura A and Lankau M J (1997), "Relationships of Gender, Family Responsibility and Flexible Work

Hours to Organizational Commitment and Job Satisfaction", *Journal of Organizational Behavior, Vol. 18*, pp. 377-391.

Thomas, L.T. and Ganster, D.C. (1995). Impact of family-supportive work variables on work family conflict and strain: A control perspective, *Journal of Applied Psychology, 80*, 6-15.

Thompson, C.A., Andreassi, J., and Prottas, D., (2003).*Work-Family Culture and Climate.*

Voydanoff P (2005) Toward a conceptualization of perceived work-family fit and balance: a demands and resources approach. J Marriage Fam 67:822–836.

Wang, P. Lawler, J.J., Shi. K.,Walumbwa.F.,andPiao, M. (2008). Family- Friendly Employment Practices: Importance and Effects in India, Kenya and China Advances in International Management, *21*, 235-265.

Zuzanek, J., Beckers, T. & Peters, P. (1998). The harried leisure class revisited: a cross-national and

longitudinal perspective. Dutch and Canadian trends in the use of time: from the 1970s to the 1990s. *Leisure Studies, 17*, 1-19.

**PART – 3 BUDGET PARTICULARS (on separate sheet)**

**(All items should be listed with cost)**

**Project Title: Work-Life Balance (WLB) among Employees in Health Care Sector: A Study of Hospitals in Lucknow**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Number** | **Rate(Rs)** | **Amount(Rs)** |
| Travel: PI/C0-PI | 50 visits | 500 | 25000 |
| Consumables/Communications/Report Preparation and Printing |  |  | 25000 |
| Data Collection | 500 | 200 | 100000 |
| Software(Single-User License to PASS 16 + NCSS 12 Only) | 1 | 118650 ($1695) | 118650 |
| **Grand Total** |  | | **268650** |

**PART – 4 BRIEF BIODATA OF PRINCIPAL INVESTIGATORS**

Area of Interest : Mathematical Demography, Stochastic Modelling.

Research Experience : 10 years

Professional Experience and Training relevant to the project

* Research Scholar - Statistics, DST-CIMS, BHU, Varanasi, Uttar Pradesh during September 2007- 01 October 2012.
* NET (UGC) - UGC-JRF in Population Studies, June 2010.
* Assistant Professor - Statistics, RGSC-BHU, Mirzapur, Uttar Pradesh during 03 October 2012- 18 March 2013.
* Assistant Professor - Statistics, CURaj, Kishangarh, Rajasthan during 01 April 2013 - 26 July, 2013.
* Assistant Professor - Statistics, Allahabad University,Allahabad, Uttar Pradesh in 29 July 2013 04 Jan 2017.
* Assistant Professor - Biostatistics, SGPGIMS, Lucknow, Uttar Pradesh in 05 Jan 2017- till date.

Publication Details

Number of papers published/accepted in refereed journals/conference proceedings = 11

Number of papers presented at conferences=12

Number of workshops/ conferences attended=09

Number of Books published=01

Selected peer-received publication in last 5 years (Maximum 5)

1. 2013 R. C. Yadava, **Anup Kumar** and U Srivastava, Sex Ratio at Birth: A Model Based Approach. Journal of Mathematical Social Sciences. Vol 65, 36-39.
2. 2014 **Anup Kumar** and R. C. Yadava, Analysing Censored Data on First Birth Interval for Heterogeneous Group of females. Journal of Combinatorics, Information & System Sciences Vol.39(1-4),149-165.
3. 2015 **Anup Kumar** and R. C. Yadava, Usual Closed Birth Interval versus Most Recent Closed Birth Interval . Journal of Data Science. Vol 13, 73-94.
4. 2017 Ritambhara R, **Anup Kumar**, Srivastava D. S. L, Vijayaraghavalu S, Kumar M., GSTM1/GSTT1 Gene Polymorphism in North Indian Population and their Association to Hypertension. BiosciBiotech Res Asia;14(4).
5. 2018 **Anup Kumar** and R. C. Yadava, Impact of Heterogeneity on Closed and Open Birth Intervals, Sankhya B: The Indian Journal of Statistics https://doi.org/10.1007/s13571-018-0166-1.

**PART – 5(A): DETAILS OF PREVIOUS INTRAMURAL PROJECTS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S.**  **NO.** | **Title** | **Duration** | **Completed /not completed** | **Final completion report submitted** | **Manuscript submitted/paper published**  **Give details** | **Detail of**  **abstract**  **presented**  **at**  **conferenc**  **e/ detail**  **of**  **publicatio**  **ns** | **Extramur**  **al project**  **generated**  **from the**  **intramura**  **l project**  **yes/no**  **If yes give details** |
| * **NA** | | | | | | | |

**PART – 5(B): DETAILS OF EXTRAMURAL PROJECTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Title | Duration | Budget | Name of funding agency | Ongoing /completed |
| * NA | | | | | |