

INTERNSHIP TRAINING

at

**IQVIA CONSULTING AND INFORMATION SERVICES INDIA PRIVATE LIMITED,
NEW DELHI**

“An assessment of the Effect of Excessive Workload on the Health of Young Professionals”

by

SAKSHI TIWARI

Under the Guidance of

Dr. VINAY TRIPATHI

Post Graduate Diploma in Hospital and Health Management

2016-18



International Institute of Health Management Research, New Delhi

INTERNSHIP TRAINING

at

IQVIA CONSULTING AND INFORMATION SERVICES INDIA PRIVATE LIMITED,

NEW DELHI

“An assessment of the Effect of Excessive Workload on the Health of Young Professionals”

A Report

By

SAKSHI TIWARI

Post Graduate Diploma in Hospital and Health Management

2016-18



International Institute of Health Management Research, New Delhi

Completion of Dissertation from IQVIA

The certificate is awarded to

Sakshi Tiwari

in recognition of having successfully completed her Internship in the
department of

Public Health

and has successfully completed her Project on

**“An Assessment of The Effect of Excessive Workload on The Health of
Young Professionals”**

Date- 26th Feb,2018 – 25th May,2018

IQVIA Consulting and Information Services India Private Limited

She comes across as a committed, sincere & diligent person who has a strong
drive & zeal for learning

We wish her all the best for future endeavors


Project Supervisor




Principal Public Health

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Sakshi Tiwari** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at **IQVIA** from **February 2018** to **May 2018**.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

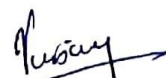
The Internship is in fulfillment of the course requirements.

I wish him all success in all her future endeavors.



Dr Supten Sarbadhikari

Dean, Academics and Student Affairs
IIHMR, New Delhi



Dr. Vinay Tripathi
Assistant Professor
IIHMR, New Delhi

Certificate of Approval

The following dissertation titled "**An assessment of the effect of excessive workload on the health of young professionals**" at "**IQVIA Consulting and Information Services India Private Limited**" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

1. Prof. A. K. Sood

2. P. S. V. Subudhikar

Signature

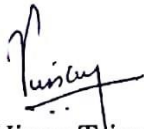
Prof. A. K. Sood

P. S. V. Subudhikar

Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Sakshi Tiwari**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. He/ She is submitting this dissertation titled **“An assessment of the effect of excessive workload on the health of young professionals”** at **“IQVIA”** in partial fulfillment of the requirements for the award of the **Post-Graduate Diploma in Health and Hospital Management**.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



Dr. Vinay Tripathi,
Assistant Professor,

IIHMR Delhi



Kishan Swaroop
Consultant, Public Health

IQVIA

**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,
NEW DELHI**

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled is **An assessment of the effect of excessive workload on the health of young professionals** submitted by **Sakshi Tiwari** Enrollment No. **PG/016/50** under the supervision of **Dr. Vinay Tripathi** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 2016 to 2018 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.


Signature

FEEDBACK FORM

Name of the Student: Sakshi Tiwari

Dissertation Organization: IQVIA Consulting and Information Services India Pvt. Ltd.

Area of Dissertation: New Delhi

Attendance: 100 %

Objectives achieved: Yes

Deliverables: Achieved all designated deliverables

Strengths: Diligent, hardworking, committed to timelines, teamwork driven.
perfectionist in her tasks

Suggestions for Improvement: Needs to be more of an active listener & participate
bro-actively in group activities

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):



Kishan Swaroop (Consultant, Public Health)

Date: 11/5/18

Place: Delhi, INDIA

Acknowledgement

My vision at the time of starting my dissertation is to explore about Public Health research and opportunities in this sector.

I am obliged to thank to Mr. Lokesh Sharma (Senior Principle) for proving me this opportunity to carry out my study as dissertation and for his continuous support and motivation.

I wish to express my special gratitude to Mr. Kishan swaroop (organization mentor) for his guidance and support regarding study. His step by step instructions help me a lot in doing a fruitful study. He has continuous source of new and innovation idea and a different kind of professionalism and work style. I am thankful to him for his faith on me which boost my confidence level.

I thank my Project Managers, Mr. Sahil Mahajan and Mr. Kapil Sharma.

My heartfelt thanks to Dr. Vinay Tripathi (University Guide) for always being path locator when I got struck at some point. Without him I was not able to complete my dissertation.

I am also thankful to all my colleagues at **IQVIA consulting and information services India private limited** for their support and coordination in completion of my study. Collective action by all provides me this opportunity to complete my dissertation.

Table of Contents

Part-1	11
Organizational Profile	11
Part 2-Dissertation	22
Introduction	23
Rationale of the Study	30
Objectives and Methodology	31
Objectives: -	31
Demography of the respondents: -	32
Limitation of the study	44
References	45
Annexures	48
Annexure-1	48

Part-1

Organizational Profile

About IQVIA

Global Existence

IQVIA is a global leader in providing research and consulting in healthcare and life sciences sector

IQVIA is the world's leading provider of healthcare survey, consulting & health intelligence services with **over 60 years** of experience. We operate in over **100 countries** and serve over **5,000 healthcare customers** across 6 continents. IQVIA accommodate key healthcare organizations and decision makers around the world, spanning government agencies, donor agencies, policymakers, researchers, life science and healthcare companies, consumer health and medical device manufacturers, as well as distributors, providers, payers, and the financial community.

Our global data and analytics **capabilities draw on data from 100,000+ suppliers and on insights from more than 55 billion healthcare transactions** managed annually. We connect knowledge across all aspects of healthcare to help **more than 5,000 healthcare clients globally** to improve patient outcomes and operate more efficiently. The depth of experience available through IQVIA is well-recognized in the industry, as is the commitment to monitor and assess safety, benefit/risk, efficacy, consequenceiveness, quality of care and value.



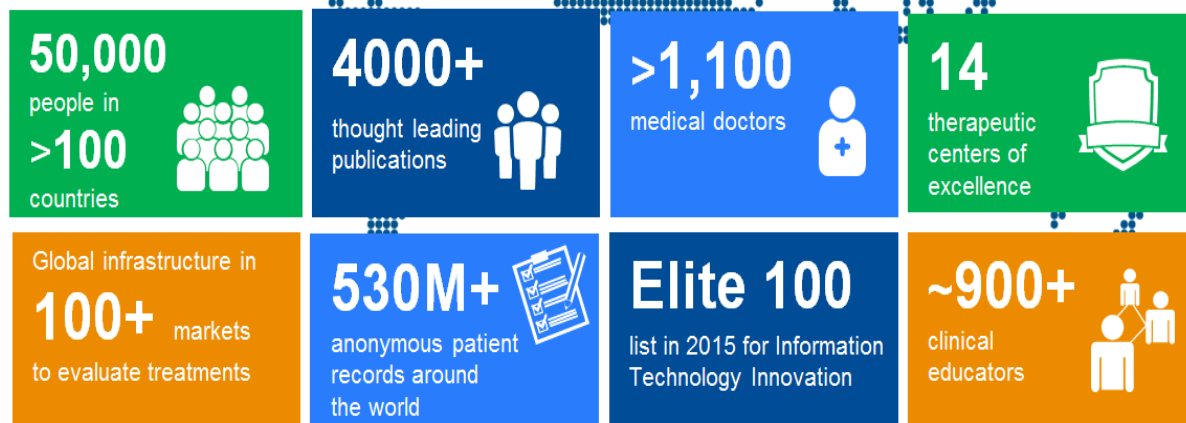
IQVIA- Global

- Founded in 1954
- **100+** countries and 6 continents | employs **50,000+** people worldwide
- **1200+** healthcare experts | **4500+** industry and customer experts
- **5000+** customers
- **35,000+** projects across advanced analytics, technology implementation & commercial services over past 5 years
- **Hundreds of proprietary methodologies** including patented systems for analytics, data encryption and forecasting
- Headquartered in Danbury, CT, USA

Our Accolades

- International Association of Outsourcing Professionals (IAOP) named IMS Health to its **2016 Global Outsourcing 100 List**
- IMS Health ranked #1** for sales and marketing business process outsourcing in life science, 2015, IDC MarketScape
- Ranked 2nd Pharmaceutical & Healthcare Consulting Company**, 2012, Vault's
- World's most Admired Companies** Fortune Magazine 2008 and 2010
- Ranked 2nd Life Science Technology Vendors** for 2013 & 2014 (IT services) by IDC
- World's Most Admired Companies**, Fortune, 2008 and 2010
- Ranked in "best in class" company** in the Business Week 50, 2007
- Ranked 5th in top 10 global research organization** by 2013 Honomichi global top 25 report

Real World Insights

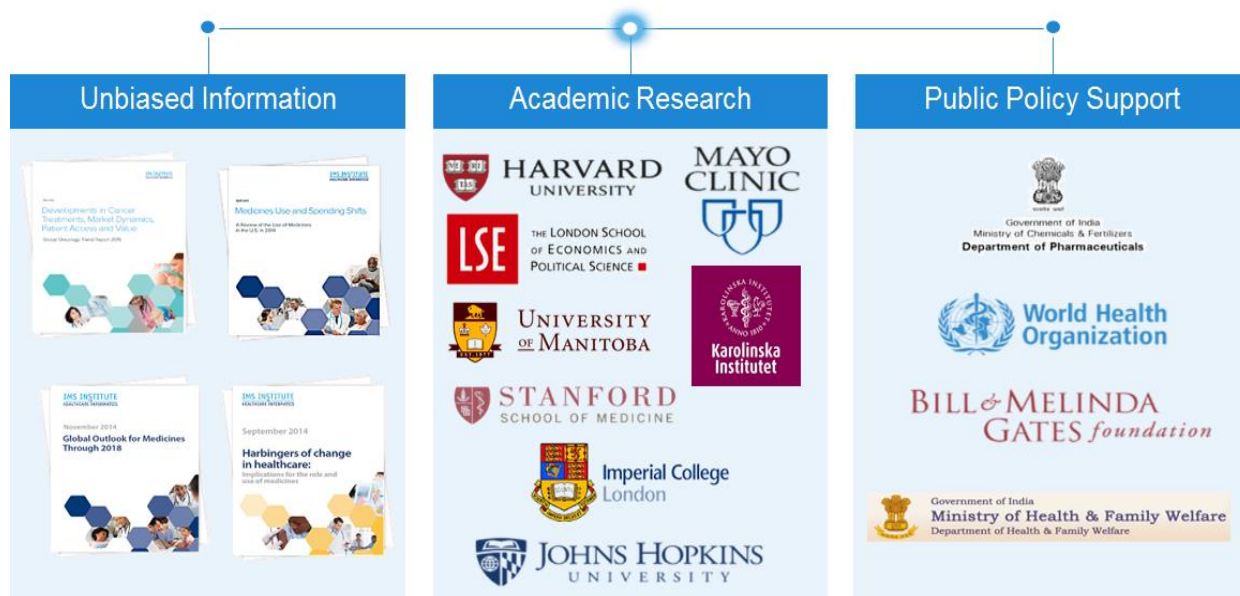


Our highly experienced teams from our global practices bring specialist skills and insights from large international mandates. Our team have worked on over 200 relevant projects globally and helped some of the world's largest organisations to deliver challenging programs and projects in the areas of healthcare and pharmaceuticals. Globally, all **leading private healthcare companies, government stakeholder and donor agencies** credence on insights provided by us for their business decisions. Some of our major clients in comprise



IQVIA has significant experience in advising **Governments, international NGOs, multidimensional funding agencies in the emerging markets in areas ranging from strategic direction to program management, national health surveys, commodity assessment and mapping, program management, procurement and supply chain assessment, in country development, monitoring and evaluation, pharmaceutical market assessment, private sector engagement, medicine access, policy and regulatory review, health data analytics etc.**

Our partnership with leading academia and international organizations supports their work
by providing information and data to researchers



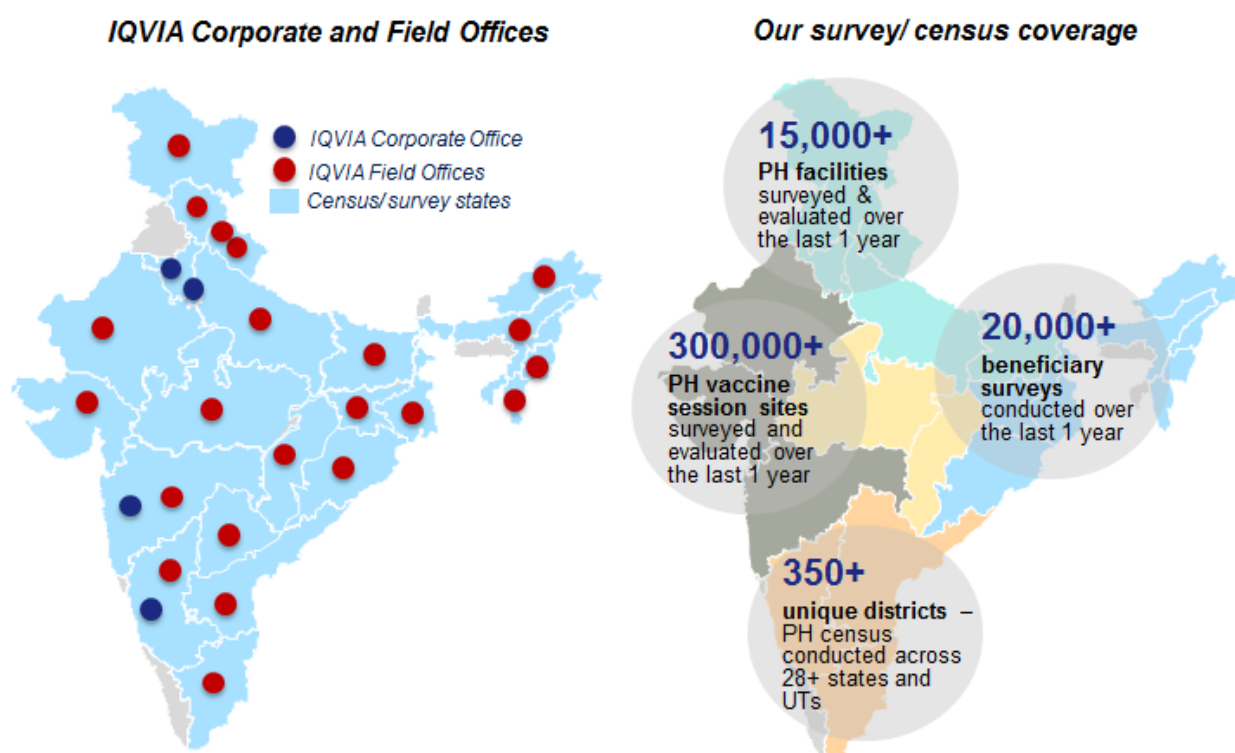
IQVIA India

In India, we have over 13 years of experience and a strong existence in the healthcare market across data, analytics and consulting services and is the "ONLY" integrated healthcare informatics player in India, with solutions across healthcare sector value chain. IQVIA India has a deep heritage of providing best-in-class market intelligence to the healthcare industry stakeholders. Our range of services comprises business strategy, market research, performance tracking tools, global market insights, regulatory policy support, operations improvement and allied technology solutions.

We have offices in Gurgaon, Mumbai, Delhi and Bangalore with total employee strength of over 3,000. Our existing data assets and customized large data collection activities are extensively used by our clients in the public, private and non-for-profit sector on regular basis along with our analytics and consulting service providing. Our existing data assets encompasses of detailed information on 3 lac Doctors, 1 lac chemist, 25 thousand hospitals, 22 thousand drugs stockiest. Our team also captures over 8 lac live transcriptions from approx. 5 thousand empaneled doctors and drug sales information from over 5 thousand stockiest monthly.

Our field and project teams have experience of working across 50 cities in India with state government, NGOs and international funding agencies.

We have a strong focus on the Government and Public sector (GPS) in India. Our Public Health Government Practice in India works with the key Central Ministries, State Governments and International Donor Agencies across India on significantly large mandates in various areas of Health Policy & Strategic Planning, Health financing, Quality Assurance and Improvement in Health Facilities, Health and Hospital Information Systems by IT solutions, Public Private Partnerships and Monitoring & Evaluation, drug procurement and supply chain system etc.









Value Proposition

- Presence of in house dedicated field teams across 50 cities in India
- Single Window Consulting Service
- Only company in Asia having extensive existing information and network of formal and informal medical hospitals, practitioners, pharmacies, and stockists

We have prior **experience of working on projects funded by government and international donor agencies including The World Bank, UNDP, CHAI, JSI, USAID Deliver, NPPA, DoP,**

Niti Aayog, PSI, BMGF, DFID, Pharmexcil, Tata Trusts, Micronutrient Initiative etc. Some of our major clients comprise:

Hospitals	Government	Pharmaceutical
		
International/Donor Agencies	Technology	Other healthcare stakeholders
		

Our Core Services

Healthcare Policy Review and Design

We have accumulated in-depth knowledge of the India health system and policy trends through the extensive interaction with health system stakeholders, as well as, work in areas of public health.

We have worked extensively in the arena of Healthcare policy and established thought leadership on policy trends by leveraging broad connections with stakeholders from key government divisions and healthcare institutions. We are currently collaborating with Department of Pharmaceuticals, India on Pharmaceutical pricing policy initiatives.

In 2013, the IQVIA India Institute and OPPI (Organisation of Pharmaceutical Producers of India) jointly produced a thought leadership study on “Understanding Healthcare Access in India” as a knowledge initiative in collaboration with government policy makers, industry and academics. This provided an opportunity for multi-sector stakeholders to exchange thinking on key issues in the Health Care Access including affordability and quality of care, and to stimulate discussions on policy options.

Quality Assurance

- IQVIA Public Health provider consulting team has senior professionals from industry who are certified as Principal Assessor for National Accreditation Board for Hospital [NABH] and have achieved the distinction of Certification and Lead Auditor for ISO 9000 Quality Systems.
- **Global experience in evaluating health systems performance and providing policy recommendations:** As a global team covering all major markets, we have extensive experience working on health-related topics and providing solutions to public health organisations and local governments and can share best practices from emerging and developed markets across the globe.

Performance Improvement: for healthcare service providers IQVIA offers a range of expertise which encompasses

- **Supply Chain Management:** IQVIA Public Health assists clients understand their existing material use and purchase patterns, inventory management and vendor management practices. This helps the client assess its annual needs for various day to day material and medicine requirements. Upon identifying the key drivers of inefficiency in a client’s overall procurement and supply chain system the IQVIA team assists clients in implementing mechanisms such as rationalization of SKUs (Stock Keeping Units) to optimize inventory levels; Procurement mechanisms such as tendering, bid process management and vendor management.

- **Total Performance Improvement:** IQVIA Public Health helps clients achieve their desired performance through its Total Performance improvement plan which helps clients enhance revenues and optimize costs.
- **Process Optimization:** Inefficient service delivery processes can lead to higher patient waiting times as well as lack of adequate personnel at peak operations which leads to higher operation burdens for the providers as well as lower patient satisfaction. Healthcare providers seeking insights regarding their service delivery processes can undergo business process re-engineering mechanisms to streamline their operations consequenceively. IQVIA helps clients implement mechanisms across facilities planning, operations and maintenance as well as contract management mechanisms such as PPPs etc.
- **Other Services:** IQVIA Public Health's other services comprise improving utilization of facilities such as OT, OPD, Imaging services; Performance benchmarking; Designing & implementing clinical KPIs; Specialty COE design.

Program Management:

IQVIA Public Health helps clients with long term projects/programs by undertaking end-to-end project management

- **Program Design:** Clients seeking help in creating a prospective project/program can approach IQVIA Public Health for advisory on mapping the entire project/program landscape and on a phase by phase implementation plan.
- **Program Implementation:** IQVIA Public Health can provide clients with full time support during the implementation of their project/program by deploying a team of experts as the Project/Program Management Unit.
- **Monitoring & Evaluation:** The progress can during a program/ project can deviate from its envisioned path if proper monitoring mechanisms are not in place. IQVIA can help clients with

monitoring & evaluation services providing information on bottlenecks and their respective solutions for keeping a project on-track.

Infrastructure Advisory: Clients *envisioning to establish healthcare infrastructure can receive IQVIA's support across a range of activities which can help them make informed decisions*

- **Gap Assessment Study:** IQVIA Public Health can provide clients with detailed gap assessments for infrastructure requirement when they are considering construction or upgradation of their infrastructure projects.
- **Feasibility Studies & Project Structuring:** The experts at IQVIA Public Health can advise clients on the feasibility of their vision, identifying key hurdles which need to be addressed by structuring a project consequenceively.
- **Bid Process Management & PMC Support:** An consequenceively bid process management approach can help clients identify the right service providers while maintaining transparency and fairness.

Institutional Strengthening & Capacity Building: IQVIA can help clients develop public institutions' internal capacity by upgrading existing personnel's skill sets. IQVIA's services encompass:

- **Capacity assessment:** Designing "To-Be" roles and conducting a skill gap assessment of the skill set and expertise of existing personnel
- **Organisation Restructuring & Capacity Building:** Preparation of new organisation chart, job descriptions, roles and responsibilities, KPIs and recruitment strategy for additional manpower
- **Implementation Support:** Designing detailed work plan, organisation and facilitation of workshops and training sessions, assisting the management identify HR services vendors Strengthening public institutions through training delivery for existing personnel and creating a monitoring & evaluation mechanism for the training provided to personnel

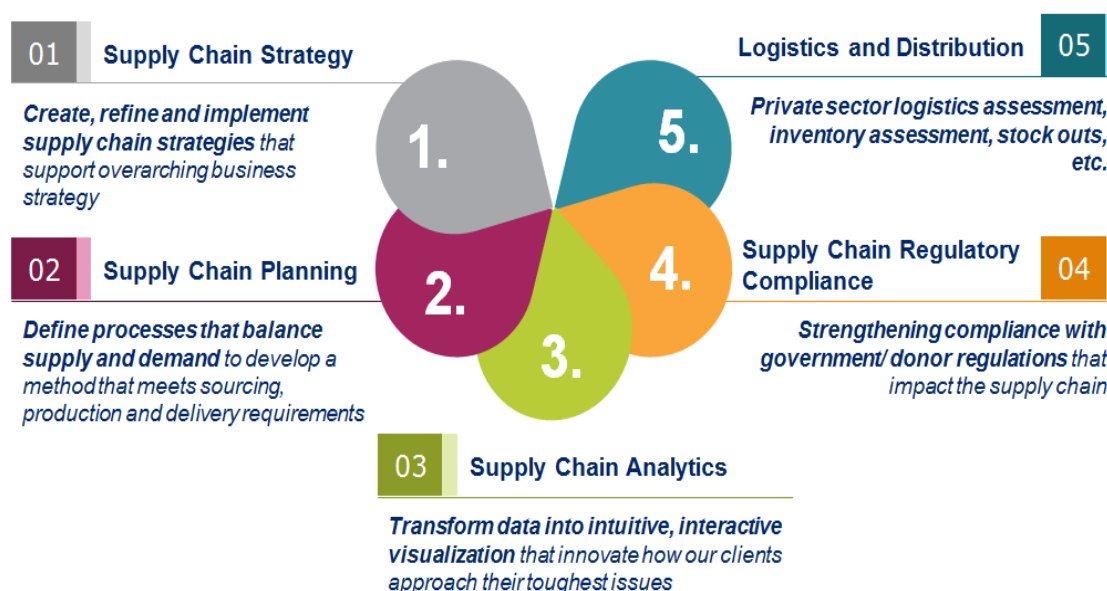
Dedicated Supply Chain Practice with Specialists in Public Health Supply Chain

IQVIA has one of the largest public health practices with nearly a decade of service devoted to the public sector and an internal structure to support and enhance our services to Governments and multi-lateral funding agencies. IQVIA Health has significant experience in advising Governments across the world in areas ranging from healthcare surveys to technology to transformational insights.

IQVIA Health India team has conducted multiple Public Health supply chain/logistics assessments South Asia and Africa markets in supply chain related to gap/bottleneck analysis, strategy, institutional review, organisational restructuring, manpower assessment, capacity building, review & documentation of policies/ SOPs/ manuals, etc.

Our practice comprises experts providing comprehensive advisory services to both **public and private sector clients and to all levels of government, legislative agencies, municipalities, nodal agencies, redevelopment agencies, NGOs, and public-sector corporations.**

The key service providing's in are: -



Part 2-Dissertation

An assessment of the Effect of Excessive Workload on the Health of Young Professionals

Introduction

Organizations in today's world are trying to meet multifaceted objectives which are often tough to reconcile. Intensification of work is a major problem for professionals and putting a pressure on their cognitive, psychological and physical abilities (Hamon-Chorlet and Rougerie, 2000).

Exercise and lack of physical activity are known determinants and risk factor for many disorders and diseases. For example- obesity, overweight, cardiovascular diseases, diabetes and some forms of cancer. According to estimate one billion adults are overweight globally (i.e., having a BMI more than 25kg/m²) and the figures are continuously rising. Physically inactive people, becoming active is important to alleviate overweight related health problems this will decrease chances of developing cardiovascular diseases and diabetes. Physical activity and exercise may also mitigate the symptoms of distress, sleeping problems and depressive mood, eliminate back pain and this all will contribute towards productivity at workplace.

Over a period, a time certain number of work-related health and safety problems has been identified in various working areas (Askenazy and Gianella,2000). Workload or we can term it as "Excessive workload" has been identified as a common denominator in psychological and physical terms among the working age group. Most of the internal and external resources which are available for workers has been affected by intensification and consequences of workload.

A report by Surgeon General (1996) on Physical Activity and Health says "Physical activity of a type that improves cardiovascular endurance reduces the risk of developing or dying from cardiovascular disease, hypertension, colon incubation period of merely days and its clinical course generally completes within weeks. Chronic health condition is a general term that comprises both chronic diseases and impairments (Hoffmann, Rice, Sung 1996).

The above explanations can be clearly observed in health professionals, which may lead to negative behavior towards their health, individual and organizational behavior.

Excessive workload which leads towards high attrition rate, turnover of employees and absenteeism (Bakker, Demerouriti, Shauffeli,2003)¹⁰ and work performance problems (Dyne, Jehn, Cummings,2002). Workload can be measure in variety of ways, some of them can be performance based measures, Self-report, behavioral observation and by psychological measures. In some cases, psychological indicators can be more sensitive than performance based measures for finding initial changes in mental workload. In this situation phycological measures can show increased activation before the occurrence of relevant performance indicators. Generally increased cardiovascular measures like heart beat and blood pressure are found at increased rate in relationship with increased workload or demanding nature of world. This situation a IQVIA at investment on mental resources for employees who desires to maintain their level of performance in response to increasing level of workload.

In an era where service sector is achieving the utter most important level, the value of employees is at peak. Employees having specialism on certain skills have large demand and gain special attention in industry, as productivity and performance of company or organization banks on health of such employees. In a highly competitive corporate environment, absenteeism of employees due to sickness, due of excessive workload. Sedentary lifestyle cannot be affordable by any company or organisation.

Literature Review

In last few years, hours of overtime per week in US, manufacturing industries, has been recorded at 4.7 hours per week. In durable goods industry it is around 5 hours per week. Said figures constitutes as all-time high. In other sectors of business, the numbers are on the increase as well. Americans are being asked to give 150% just to be on their workload.

Performing at unrealistic workload level will certainly lead to a breakdown. This is already happening in some of the workplaces and is becoming obvious in some large sector agencies.

Technology has been a major factor in the dramatic increase in workload and burnout. With the insertion of cellphone, Pagers, Fax machines and email employees are never far from their work. They can't escape from work and relax. Phone call is causing additional burden on the employee as it interrupts his concentration on as specific project and distract the flow of a routine. This can be a major stress factor, as the quality of work time is as important as quantity of work time.

Employees must now find time for attending e-mails and voice mails, staying quick on fast moving technologies and otherwise dealing with vast areas of work. The AP reported in May 1998 state that average business manager receives 190 messages a day, this can be a perfect example of work overwork.

The information technology field is a perfect model of work overwork in consequence. Work overwork is cited as the leading source of stress for members of the industry in a report released by RHI consulting in Menlo Park, Ca. Many jobs are vacant, which puts extra burden on shoulder of existing employees. "companies are trying to do whatever they can do with the minimum amount of staff possible" says Maria Schafer, Program Director at Meta Group, Inc.

Adopting systems from different vendors by IT departments, which results in more Multifaceted projects and greater difficulty in completing them, is one of the major reason of overwork. Added to this, is the need of many employees in large metropolitan areas to spend up to several hours a

day commuting to and from work, making the average work day in all practicality, much longer than needed.

1. Consequence of Workload on Employee Health

“Burnout results when individuals experience increasing amount of negative stress” (PG. 2 of www.employer-employee.com/Burnout.html) says Gary Vikesland. Stress: (1) a force that tends to distort a body. (2). A factor that induces bodily or mental tension. (Dictionary Definition). Stress from work overwork leads to physical or psychological strain, and negative stress can result in feelings of:

Distrust

Rejection

Anger

Depression

Fear

A sense of working out of obligation

Boredom

These feeling in turn can lead drug use and chronic smoking and all the health problems they represent. They can also lead to numerous other health problems including:

High cholesterol

Fatigue

Increased heart rate

Weight gain or loss

Headaches

Upset stomachs

Rashes

Insomnia

Ulcers

High blood pressure

Strokes

In extreme cases worker overwork and burnout can even lead to death. The discovery channel has reported on Japanese Businessman who have literally worked themselves to death, and simply drop dead of too much stress.

2. Consequence of Workload on family

Work overwork not only consequence an employee but can also influence the employee's family. Changes in the roles of couples in work and home are increasing the workload assigned on them. As a result, married men and women are more likely to experience anxiety and depression than a single men and women. (Nation campaign on work overwork). This added stress has important consequences on a family. There are two most important concerns: First, the time couples should be spending with their children is time spend working instead. Second is the lack of time the couple spends developing their relationship as a couple.

When both parents work full-time, their children lose out on "quality time" they could be spending with their parents. Only parents can teach their children the traditions that lie within the family. The response children show when parents teach them to read, or assist them with homework is much greater than the response to baby-sitters or teachers. Without the time to spend with their

children, families lack the closeness they should have. Married couples with children also suffer from added stress of providing time for the family.

For couples, work overwork can be just as devastating. Divorce rates have been increased in the last few decades than ever. Couples lose that “spark” when they have a lot of things to deal with. The stress that work overwork puts on couples’ relays back into their relationship causing tension and anger between them. This can be disaster in the life of couple who haven’t deal with this earlier.

3. Consequence of Workload on Company/Organization

We have seen the consequence of work overwork which an employee has. So, what does this mean to an employer whose employee may be suffering from work overwork and consequent burnout? Why should an employer care? There are four major reasons.

- The employees most likely to develop burnout are the company’s best employees. The superstar employees are most likely to feel burnout because they generally put lot of themselves into their job, spend more time at work, and take work more seriously and personally. An employee that does not take their work personally will not experience burnout. (www.employer-employee.com/Burnout.html)
- The superstar employee who is feeling burnt-out or leading towards burnout is the last one to see it. Furthermore, before they correct the problem, they will likely do all the wrong things to try to correct by themselves. They might increase the amount of effort they put into the job. Employees who attempts to outperform their stress usually lasts feeling discouraged and leave it at some point, which is faced by employer in form of losing their best employees. A high attrition rate is clear indicator that a company may be facing because of worker’s overwork. (www.employer-employee.com/Burnout.html.com) by Gary Vikesland, MA
- Employees who report experiencing a high level of stress are the thrice more likely to suffer from continuous illness. This can lead to increased absences from work for sick leaves, and in most of

the cases cause workman's compensation or other medical expenses for the company. According to the Bureau of labor statistics, Workers who must take time of the work because of stress, anxiety, or a related disorder will be off the job for about 20 days.

- The work quality of employee also gets affected up to large extent. The Journal of Applied Psychology has done several studies on the consequences of stress prevention programs in hospital setting. In one study, the frequencies of medication errors declined by 50% after prevention activities were implemented in 700-bed hospital. In the second study, there was 70% reduction in malpractice claims in 22 hospitals that implemented stress prevention activities. In contrast there was no reduction in claims in a similar group of 22 hospitals that did not implement stress prevention activities. (www.cdc.gov/noish/stresswk.html)

As one can see, work overwork has a negative consequence on the organisation or company as well as on employers and employees, this results in absenteeism and has direct consequence on the productivity within the organisation or company. Hence, the need for prevention work overwork is quite clear.

(<http://www.ecst.csuchico.edu/ddahl/paper.html>)

Lack of Physical Activity (PA) are known indicators and are major risk factors for several diseases and disorders. For example- overweight and obesity, cardiovascular diseases, diabetes and some type of cancer. As we have discussed earlier that globally one billion adults have BMI less than 25kg/m² and this number is continuously increasing. Person who are physically inactive, it is must for them to be active to deal with overweight related health problems and to decrease the chances of developing cardiovascular diseases and diabetes. PA and exercise may also eliminate the symptoms of distress, depressive mood and sleeping problems, backpain which all will contribute towards productivity at work.

Lifestyle factors like use of alcohol, tobacco and drugs, diet and other non-occupational factors like hereditary, age, gender and climate can interact with occupational factors causing increase in

health risk of working youth population. This will all lead towards health figure of nation and will also attract towards increase in percentage of non-communicable diseases and chronic pulmonary diseases.

Rationale of the Study

Over workload are responsible in increasing the risk of alcohol and drugs abuse, complications in social relationship, depression, anxiety, and suicide in health professional. However, the consequence of too much physical workload and job stress on quality and outcomes of healthcare delivery is quite clear. Over work load and job stress can have negative impact on practices performance and increase the risk for occupational health complications. Insight in to the underlying mechanism and the size of such consequences are limited.

Professionals are required to perform various tasks at the same time (multi-tasking) within a restricted time frame. They are subjected to physical workload as well as mental workload. The main purpose of the present study is to determine the occurrence and influence of work load on health between the working youth professionals.

Objectives and Methodology

Objectives: -

1. To examine the workload among young working professionals and document the reasons for the same.
2. To determine the health consequences of workload among young working professionals.

Methodology: -`

Study type: Descriptive cross-sectional study.

Study Area- Two paying guest house located in Laxminagar area of New Delhi,

Sample size:

Using a purposive sampling, a sample size of 120 was covered. A structured questionnaire was distributed to all the respondents. Out of 120 respondents, 102 filled the questionnaire completely and were taken into consideration.

Inclusion criteria: Young professionals, who were working in any organization for more than 3 months and residing in two selected paying guest house, were included in the study.

Data collection tool: semi-structured questionnaire.

Data analysis: Data was analyzed using SPSS version 16.0 software.

Analysis and Results

Demographic details of the respondents: -

Table 1: Gender of Respondents

Gender		
Gender	Frequency	Percent (%)
Female	57	55.9
Male	45	44.1
Total	102	100.0

Table 2: Age of Respondents

Age		
Age Category	Frequency	Percent (%)
20-29 years	90	88.2
30-39 years	12	11.8
Total	102	100.0

Table 3: Nature of Respondent's Organization

Type of Organization		
Organization Type	Frequency	Percent (%)
Government or public sector	27	26.5
Private	57	55.9
Other (internship or part time)	18	17.6
Total	102	100.0

Gender-wise distribution of the respondents shows that 56 percent of them are females and remaining are males. Almost 88 percent of the respondents are in the age group of 20-29 years, while remaining 12 percent in the age bracket of 30-39 years. With respect to their profession,

nearly 56 percent worked in the private sector, 26 percent in government and 18 percent were either interns or working part time.

Workload as determined by the respondents: -

Table 4: Responses on workload

Excessive Workload		
Category	Frequency	Percent (%)
No	19	18.6
Yes	48	47.1
Sometimes	35	34.3
Total	102	100.0

Respondents were asked about their workload status, i.e., whether they have excessive workload, if any, due to the job. It was found that 47.1% respondents reported for excessive workload, while 34.3% responded that they have excessive workload sometimes while 18.6% responded for not having any excessive workload.

Table 5: Gender wise responses on workload

Gender*Workload Crosstabulation					
Gender		workload			Total
		No	Yes	Sometimes	
Female	Count	8	27	22	57
	% of Total	7.8%	26.5%	21.6%	55.9%
Male	Count	11	21	13	45
	% of Total	10.8%	20.6%	12.7%	44.1%
Total	Count	19	48	35	102
	% of Total	18.6%	47.1%	34.3%	100.0%

Gender wise cross tabulation of workload shows that female employees report more workload in both the categories.

Table 6: Organization wise responses on workload

Organization*workload Crosstabulation

Organization Type		Workload			Total
		No	Yes	Sometimes	
Government or public sector	Count	3	11	13	27
	% of Total	2.9%	10.8%	12.7%	26.5%
Private	Count	15	30	12	57
	% of Total	14.7%	29.4%	11.8%	55.9%
Other (internship or part time)	Count	1	7	10	18
	% of Total	1.0%	6.9%	9.8%	17.6%
Total	Count	19	48	35	102
	% of Total	18.6%	47.1%	34.3%	100.0%

It is found that employees working in private sector responded more for excessive workload as compared to others.

Table 7: Reasons of excessive workload

Reasons for Workload	Responses		Percent of Cases
	N	Percent	
Shiftwork	11	5.3%	10.8%
Inadequate break times/mealtimes	19	9.1%	18.6%
Unsocial hours	19	9.1%	18.6%
Unfair distribution of work	43	20.6%	42.2%
Repetition of work	39	18.7%	38.2%
Meeting deadlines	38	18.2%	37.3%
Underutilization of skills	16	7.7%	15.7%
Poor supervision	24	11.5%	23.5%
Total	209	100.0%	204.9%

In the above Table- 7, respondents respond on reasons for their excessive workload. From analysis it is found that Unfair distribution of work (20.6%), Repetition of work and Meeting deadlines only, counts for more than 50%(n-209) for stress and excessive workload

Table:8 Response on work life balance

work life balance

Category	Frequency	Percent (%)
No	49	48.0
Yes	53	52.0
Total	102	100.0

When respondents were asked to report on the work life balance, 48.0% respondents said that they don't have work life balance.

Health consequences of excessive workload

Table:9 Responses on Hours of sleep

Sleep*Workload Crosstabulation				
Sleep Time	workload			Total
	No	Yes	Sometimes	
less than 6 hours	5	12	1	18
	27.8%	66.7%	5.6%	100.0%
6 hours	12	21	26	59
	20.3%	35.6%	44.1%	100.0%
8 hours	2	14	8	24
	8.3%	58.3%	33.3%	100.0%
10 hours	0	1	0	1
	.0%	100.0%	.0%	100.0%
Total	19	48	35	102
	18.6%	47.1%	34.3%	100.0%

The above table shows cross-tabulation between sleep time and workload and it is found that those who sleep up to 6 hours are more in the category of respondent who have reported they have excessive workload (including sometimes).

Table:10 Responses on Health and Safety is at Risk because of Workload

Health and Safety is at risk because of workload		
Category	Frequency	Percent (%)
No	26	25.5
Yes	41	40.2
Sometimes	35	34.3
Total	102	100.0

Respondents were asked about their perception on risk over health due to workload and 40.2% respondents stated that their health is at risk, while 34.35% respondents stated sometimes their health is at risk and 25.5% respondents think that their health is not at all at risk.

Table:11 Responses regarding sick- leave

Sick Leave *Workload Crosstabulation				
Sick Leave	excessive workload			Total
	No	Yes	Sometime	
No	11	29	19	59
	18.6%	49.2%	32.2%	100.0%
Yes	8	19	16	43
	18.6%	44.2%	37.2%	100.0%
Total	19	48	35	102
	18.6%	47.1%	34.3%	100.0%

The above table no.-11 shows cross-tabulation between sick leave and excessive workload. It indicates that those who have taken sick leaves are more in the category of those respondents who have reported excessive workload (including sometime).

Table:12 Reasons for availing sick leave

@4\$yourworkloadtoomuch*\$Diseases Crosstabulation

		Reasons for sick leave ^a										Total
		exhaustio n/fatigue	gastrointe stinal disorder	depressio n/ anxiety/ anger	violence/ bullying	elevated stress	joint/musc le pain	headache s	trouble sleeping	memory trouble	irritability	
no	Count	3	3	4	2	1	2	6	5	3	6	19
workload yes	Count	19	7	9	5	3	6	28	11	3	9	48
Total	Count	22	10	13	7	4	8	34	16	6	15	67

Table no.-12 indicates that most of the employees who said yes to excessive workload took leave due to depression, elevated stress, exhaustion, headaches and joint pain. And those who said no to excessive stress also took leave due to headaches, trouble sleeping and exhaustion.

Behavioral attitude due to stress and excessive workload: -

Table:13 Responses on Behavioral attitude

Behavioral attitude due to stress and excessive work load

Category	Frequency	Percent (%)
Positive	20	19.6
Negative	10	9.8
Calm	26	25.5
Anxious	8	7.8
Angry	13	12.7
Depressed	25	24.5
Total	102	100.0

Behavior of a person varies under circumstances, in Table-15, behavior of the respondents due to excessive workload has been analyzed and results state that merely 20 respondents (19.6%) have positive attitude rest all have some kind of change in their attitude. Major elements contributing

towards change in behavior are being calm (25.5%), depressed (24.5%) and angry (12.7%). This shows how stress and excessive workload has behavioral impact on life of an employee.

Table:14 Responses on Physical Activity

Crosstabulation - Workload*Physical activity							
Workload		Exercise or Physical activity					Total
		once a day	once in two or three days	once in a week	a few days in a month	no exercise at all	
No	Count	4	2	0	1	12	19
	% of Total	3.9%	2.0%	.0%	1.0%	11.8%	18.6%
Yes	Count	17	3	7	2	19	48
	% of Total	16.7%	2.9%	6.9%	2.0%	18.6%	47.1%
Sometimes	Count	5	6	2	7	15	35
	% of Total	4.9%	5.9%	2.0%	6.9%	14.7%	34.3%
Total	Count	26	11	9	10	46	102
	% of Total	25.5%	10.8%	8.8%	9.8%	45.1%	100.0%

In Table-14 The above table shows a relation between Excessive workload and exercise or physical activity. It shows that among the responded 33.3% of the respondent does not do any physical exercise and they have excessive workload.

Areas to be work on by company/Organization to reduce excessive workload on health of working youth population:

Table:15 Responses of area to be worked on

areas to be worked upon to reduce excessive workload		
Category	Frequency	Percent
Poor decision-making process	11	10.8
Proper training	9	8.8
Knowledge and development opportunity	26	25.5
repetition of work	15	14.7
Lack of authority	5	4.9
Poor communication and technology	24	23.5
conflicting work demands	12	11.8
Total	102	100.0

In the above Table-15, response on areas to be worked upon is asked from respondents and analysis states that lack of knowledge and development opportunities and poor communication are factors which contribute 50% of response on which organisation need to work for their employees. other major areas were organisation may provide assistance to their employee could be poor decision-making process, repetition of work and conflicting work demands.

Findings

Decreases productivity is an important consequence of presence of health problems. On the other hand, several health problems can be prevented with appropriate continuous physical activity. The Effect of workload on health behavior and presentation is analyzed in this study. This study will also put glimpse on behavior of respondents because of excessive workload.

In the preventive healthcare system employee is considered as an important part as they can act as value creator, increase importance of health services as they can set role model by performing physical and mental activities for decreasing prevalence of chronic diseases and creating a healthy environment.

Today we can see that productivity of an employee is deteriorating day by day due to excessive workload and it also decreases overall productivity of company/organization.

We all know that several diseases can be prevented with the help of physical activity. Respondents are asked about their response on workload they have that is excessive workload if any, due to that job. It is found that 48(47.1%, n=102) respondents reported for excessive workload, while 35(34.3%) responded that sometimes they have excessive workload while 19(18.6%), Responded for not having any excessive workload, Gender wise cross tabulation of workload is done and from analysis it is found that female employees report more workload in both the categories. 48.1% female employees and 33.3% male employees reported that they have excessive workload normally or sometimes.it is found that 48.0% respondents, said that they don't have work life balance.

Respondents respond on reasons for their excessive workload. From analysis it is found that Unfair distribution of work (20.6%), Repetition of work and Meeting deadlines only, counts for more than 50%(n=209) for stress and excessive workload. And crosstabulation between Sleep time

and Workload and it is been analyzed that among respondents having sleep time less than 6 hours or 6 hours of sleep, 72.3%, or 79.7% have excessive workload. Connection between sick leave and excessive workload. Among Respondent for the sick leave, 81.4% had excessive workload. And the employees who said yes to excessive workload, they had these reasons for availing sick leaves to depression, elevated stress, exhaustion, headaches and joint pain.

Behavior of the respondents due to excessive workload has been analyzed and results state that merely 20 respondents (19.6%) have positive attitude rest all have some kind of change in their attitude. Major elements contributing towards change in behavior are being calm (25.5%), depressed (24.5%) and angry (12.7%). This shows how stress and excessive workload has behavioral impact on life of an employee.

Responses on physical activities, 45.1% respondents responded that they don't do any kind of physical activity and only 25.5% respondents do daily physical activity. From this we can say how health of an employee is under risk due to excessive workload and lack of time for personal activities.

Response on areas to be worked upon is asked from respondents and analysis states that lack of knowledge and development opportunities and poor communication are factors which contribute 50% of response on which organization need to work for their employees. Other major areas were organization may provide assistance to their employee could be poor decision-making process, repetition of work and conflicting work demands

Conclusion

There are several problems related to workplace, but stress and excessive workload can be counted as one of the major existing problem. Excessive workload is stretching from work to home and is becoming the problem of whole world and somehow every employee either working fulltime, part-time or working in public sector or private sector. Causes and losses from workload is evident from study done. Workload is increasing day by day in every sector. Overtime is now becoming a common factor in every organization and it is also expected and accepted now. Impact of this can be found in employee's individual life, in organization and in society. Increased attrition rate, more number of divorce cases, poor health and increasing out of pocket expenditure of people are evident to justify the effect of stress and workload on life of an employee. one of the solution to this can be stress management, another can be done from organization's side like defining roles and responsibilities clearly, supervision and work distribution should be appropriate and as per qualification. All these will help in development of healthy workplace, which will lead in development of healthy workforce.

From the present study, it is evident that stress and excessive workload is playing significant role in health of employee which must be resolved from both employee and employer side. There should be retreat, sports activities, physical activities, healthy workplace and by increasing support to individuals by ensuring good career and staff development strategies and promoting formal and informal social support.

Excessive workload is adversely associated with health and wellbeing of employee. Due to presence of stress we can find cases of physical and mental illness. Behavior of employee also get hampered due to stress and workload which decreases productivity.

Limitations of the study

- Time is also a limitation as study has to be completed with scheduled time frame.
- Result may not be generalized to other population.

Recommendations

Recommendations for Employee

There are several things which an employee can do to cope up with stress and excessive work load.

- Young working professionals (i.e. about 81.4%) have excessive work load according to this study. Hence , they should try to do their work in segments/divisions/intervals. This will help employees to take rest during working hours.
- Since , employee have their sleeping hours reduced due to workload hence , they should try to develop a habit of taking a proper eight hours of sleep.
- Participate in competitions which need you both mentally and physically as it will help in increasing your productivity.
- Engage yourself in any kind of sport and musical therapy .

Recommendations for Organisation /Company

- Organisation should try to work on the inadequate working hours , repetition of work , and unfair distribution of work , to make their employee work in a better organisational environment.
- Work load is more in Private organisations(29.4%) , hence they should work on ways to relieve this workload.(arranging some play full activities , quizzes , get together during free time)
- They should try to avoid conflicting environment , maintain proper authority and supervision.

References

1. Hamon-Cholet, S., & Rougerie, C. (2000). La charge mentale au travail: Des enjeux complexes pour les salariés. *Economy et statistique*, 339-355, 243-255.
2. Haskell WL, Lee I, Pate RR, Powell KE, Blair SN, Franklin BA, Macera CA, Heath GW, Thompson PD, Bauman A: Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Circulation* 2007,116:1081-1093.
3. James PT, Rigby N, Leach R: The obesity epidemic, metabolic syndrome and future prevention strategies. *European journal of cardiovascular prevention and rehabilitation* 2004, 11:3-8.
4. National Institutes of Health: *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults--The Evidence Report* 1998.
5. Mead GE, Morley W, Campbell P, Greig CA, McMurdo M, Lawlor DA: Exercise for depression. *Cochrane Database of Systematic Reviews* 2009:CD004366.
6. Hayden JA, van Tulder MW, Malmivaara A, Koes BW: Exercise therapy for treatment of non-specific low back pain. *Cochrane Database of Systematic Reviews* 2005:CD000335.
7. Askenazy, P., & Gianella, C. (2000). Le paradoxe de productivite: les changements organisationnels, facteur complementaire a l'informatization. *Economie et statistique* 339-340, 219-237.
8. Hoffman, C., Rice, D., & Sung, H. Y. (1996). Persons with chronic conditions. Their prevalence and costs. *JAMA* 276, 1473-1479.
9. Mojinyinola, J.K.1984. *Occupational Stress Among The Student Nurses of University College Hospital (U.C.H.), Ibadan: It's Effects on Their Mental Health and Well- Being*. Unpublished B.Sc. Project, University of Ibadan.

10. Bakker, A. B., Demerouti, E. and Schaufeli, W.B. (2003). Dual process at work in a call center: An application of the job demands-resources model. *European Journal of Work and Organizational Psychology*, 12, 393-417.
11. Dyne, L., Jehn, K.A. and Cummings, A. (2002). Differential effects of strain on two forms of work performance: Individual employee sales and creativity. *Journal of Organizational Behavior*, 23, 57-74.
12. Wickens, C. D., and J. G. Hollands. *Engineering Psychology and Human Performance*, 3rd ed. Prentice Hall, Upper Saddle River, N.J., 2000.
13. Wilson, G. F. Psychophysiological Test Methods and Procedures. *In Handbook of Human Factors Testing and Evaluation* (S. G. Charlton and T. G. O' Brien, eds.), Lawrence Erlbaum Associates, Mahwah, N.J., 2002, pp. 127-156.
14. Lenneman, J. K., J. R. Shelley, and R. W. Backs. Deciphering Psychological-Physiological Mappings While Driving and Performing a Secondary Memory Task. Presented at Third International Driving Symposium on Human factors in Driver Assessment, Training and Vehicle Design, Rockport, Maine, 2005.
15. Backs, R. W., and K. A. Seljos. Metabolic and Cardiorespiratory Measures of Mental Effort: The Effects of Level of Difficulty in a Working Memory Task, *International Journal of Psychophysiology*, Vol. 16, No. 1, 1994, pp. 57-68.
16. Mehali Ali, Impact of Preventive Health Care on Indian Industry and Economy, Indian Council of Research on International Economic Relations, 2007.
17. Shapiro SL, Shapiro DE, Schwartz GER: Stress Management in Medical Education. A Review of the Literature. *Acad Med* 2000, 75:748-759
18. The sick physician: Impairment by psychiatric disorders, including alcoholism and drug dependence. *JAMA* 1973, 223:684-687.
19. Vitaliano, P. P., R. D. Maiuro, J. Russo and W. Katon. 1990. "Coping profiles associated with psychiatric, physical, work and family problems." *Health Psychology*, 9(3): 348-376.

20. Alterman, T., R. B. Shekelle, S. W. Vernon and K. D. EFFECTS OF JOB STRESS ON HEALTH, PERSONAL AND WORK BEHAVIOUR OF NURSES Bureau. 1994. "Decision Latitude, Psychologic demand, job strain, and coronary disease in the Western Electric Study." *American Journal of Epidemiology*, 139:620-627.

Annexures

Annexure-1

Questionnaire

An Assessment of the Impact of Stress and Excessive Workload on Health of young professionals.

- 1) In which kind of organization are you employed?
 - a) Government or public
 - b) Private sector
 - c) Internship or part time
- 2) Gender
 - a) Female
 - b) Male
- 3) What is your oldness?
 - a) Less than 20 years
 - b) 20-29 years
 - c) 30-39 years
- 4) Is your workload too much?
 - a) Yes
 - b) No
 - c) Sometimes (more than three days a week)
- 5) What are the reasons of your excessive workload? (You can choice more than one as applied to you)
 - a) Shiftwork
 - b) Inadequate break times/mealtimes
 - c) Unsocial hours

- d) Unfair distribution of work
 - e) Repetition of work
 - f) Meeting deadlines
 - g) Underutilization of skills
 - h) Poor supervision
- 6) Do you have a good work life balance?
- a) Yes
 - b) No
- 7) How much control do you have over your job?
- a) You can plan your own work
 - b) You can participate in decision making for your own job
 - c) You have control over pace/content of your work
 - d) You have no control at all
 - e) Agree with point a-c
- 8) In what way do you feel about your job:
- a) Satisfied
 - b) Dissatisfied
 - c) Sometimes dissatisfied
- 9) How many hours of sleep do you take?
- a) Less than 6 hours
 - b) 6 hours
 - c) 8 hours
 - d) 10 hours
 - e) More than 10 hours
- 10) Do you feel your health and safety is at risk because of workload?
- a) Yes

b) No

c) Sometimes

11) Have you taken any sick leave due to effect of workload on health, during the past two months?

a) Yes

b) No

12) Have you had any of the following complications due to excessive workload, in the last two months? (Tick more than one if applies to you)

a) Exhaustion/Fatigue

b) Gastrointestinal disorders

c) Depression/Anxiety/Anger

d) Violence/Bulling

e) Elevated stress

f) Joint/Muscle pain

g) Headaches

h) Trouble sleeping

i) Memory Trouble

j) Irritability

13) How often do you exercise or join in physical activity?

a) Once a day

b) Once in two or three days

c) Once in a week

d) A few days in a month

e) No exercise at all

14) What is your behavioral attitude due to excessive work load?

a) Positive

b) Negative

- c) Calm
- d) Anxious
- e) Angry
- f) Depressed

15) According to you, which areas to be controlled by the organization to reduce stress and excessive workload?

- a) Poor decision-making process
- b) Lack of training
- c) Lack of knowledge and development opportunity
- d) Repetition of work
- e) Lack of authority
- f) Poor communication and technology
- g) Conflicting work demands

Annexure-2

Functioning Characterizations

Fatigue/Exhaustion:

Fatigue is physical and/or mental overtiredness that can be generated by stress, medication, overwork, mental and physical illness or disease.

Gastrointestinal disorders:

A disease that relate to the gastrointestinal tract are categorized as digestive diseases.

Depression:

It is a state of low mood and hatred to activity.

Anxiety:

It is a multisystem answer to be supposed as threat or danger.

Anger:

It is an emotional reaction considered as extreme annoyance, rage, indignation or unfriendliness.

Violence:

Application of physical force to injure or abuse.

Bullying:

It is a method of aggressive behavior demonstrated using force or coercion to affect others, particularly when actions are habitual and involves an unevenness of power.

Positive attitude:

It is one that gives confidence and determination. It is a willing heart and joyful spirit no matter the situation.

Negative attitude:

It is a result of lack of imagination. A negative attitude is characterized by a great condescension for everything, someone who continuously points out the negative in everything.

Calm attitude:

Nearly or entirely motionless, undisturbed, not enthusiastic or agitated.

Anxious:

Full of mental suffering or uneasiness because of fear of danger.

Work life balance:

Trying to schedule an equal number of hours for each of your numerous work and individual activities.