# Prevalence of burnout amongst doctors of seven hospitals in Delhi.

**A dissertation submitted in partial fulfilment of the requirements for the award of**

**Post-Graduate Diploma in Health and Hospital Management**

**by**

**Dr.Neha Dang**


**International Institute of Health Management Research**
**New Delhi -110075**
**2010-2012**

JAYPEE INFRATECH

# Certificate of Completion of Internship

**Date: 31st March 2012**

## TO WHOM IT MAY CONCERN

This is to certify that **Dr. Neha Dang** has successfully completed her **3 months** internship in our organization from **December 19, 2011 to March 31, 2012.** During this internship, she worked on "**A descriptive study to measure the Prevalence of Burnout amongst Doctors of Private and Government Hospitals in Delhi**", under the guidance of me and my team at **The Jaypee Medical Centre, Noida**.

We wish her good luck for her future assignments.

(Signature)

Mr. Deepak Venugopalan
Chief Operating Officer
Jaypee Medical Centre

JAYPEE GROUP

JAYPEE INFRATECH LIMITED
Regd. Office : Sector - 128, Noida - 201304, Uttar Pradesh (India)
Ph. : +91 (120) 2470800 Fax: +91 (0120) 2470887 Website : www.jalindia.com

# Certificate of Approval

The following dissertation titled "**Prevalence of burnout amongst doctors of seven hospitals in Delhi**" is hereby approved as a certified study in management carried out and presented in a manner satisfactory 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 | Signature |
| --- | --- |
| Anupama Sharma | |
| | |
| | |

## Certificate from Dissertation Advisory Committee

This is to certify that **Dr Neha Dang,** a graduate student of the **Post- Graduate Diploma in Health and Hospital Management,** has worked under our guidance and supervision. She is submitting this dissertation titled **"Prevalence of burnout amongst doctors of seven hospitals in Delhi"** 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.

Faculty Mentor Anupama Sharma
Designation Assistant Professor
IIHMR
New Delhi
Date

Organizational Advisor (NISHANT MEHTA)
Designation Sr. Manager (MKT & Communications)
Organization Jaypee Medical Centre
Address Sec-128, Noida, U.P.
Date

# ABSTRACT

Prevalence of burnout amongst doctors of seven hospitals in Delhi.

by

Dr Neha Dang

This study investigates the prevalence of burnout amongst the doctors working in both private and government hospitals in the state of Delhi. The hospitals include four private and three government hospitals. It also attempts to understand the phenomenon of burnout by studying the independent variables such as age, gender, organisation, speciality, designation and time spent on hobbies in relation to burnout. Data was gathered from doctors working in several governments and private hospital using a questionnaire. All the hospitals chosen for the study have high patient load. 129 physicians were then categorized into initial, moderate and advanced states of burnout. The study revealed that 42% of the doctors out of the total sample are in advanced state of burnout and that the younger doctors and those working in government hospitals are the most likely candidates to suffer burnout. The phenomenon is seen across the specialties whether medical or surgical. Doctors spending more time on hobbies or areas of interest other than medicine are equally vulnerable to the phenomenon of burnout. Both the genders are equally vulnerable to the malady.

**ACKNOWLEDGEMENT**

Nothing in this world happens single handed. It is the collective efforts of many people who put in together to set the things done, so does this project work.

A project report is out rightly incomplete without acknowledgment to all people who have contributed towards it. I humbly express my reverential gratitude to **Mr. Deepak Venugopalan** (Chief Operating Officer) who gave me opportunity to undergo internship at this esteemed organization.

**Ms. Soniya Tandon** ( Head, HR) and **Mr.Rajesh Poddar** (Deputy Manager, HR)for giving me permission to commence this study and then directing and providing timely guidance during my study.

I acknowledge with gratefulness the help received from **Mr. Nishant Mehta** (Head, Marketing ) and **Dr Kapil Kataria** for their constant guidance, encouragement, support & moral boost.

I am extremely thankful to **Dr Aashish Dang** (SMO, Hindu Rao Hospital) **and Dr Vineet Narang**(Consultant, Holy Family Hospital) for their support & for helping me in carrying out this project successfully.

Most importantly I would like to thank my mentor **Ms. Anupama** for her unconditional support, guidance and motivation throughout the study period.

# TABLE OF CONTENTS

# LIST OF FIGURES

# LIST OF TABLES

## LIST OF ABBREVIATIONS

| | |
|---|---|
| HI | High |
| LO | Low |
| INI | Initial |
| MOD | Moderate |
| ADV | Advanced |
| OPD | Out Patient Department |
| EE | Emotional exhaustion |
| DP | Depersonalisation |
| LPA | Lack of personal accomplishment |
| BBQ | Boudreau Burnout Questionnaire |
| MMBI | Modified Maslach Burnout Inventory |

## PART – I: Internship report

## ABOUT JAYPEE GROUP

The Jaypee Group is a 15,000 crore well diversified infrastructural industrial conglomerate in India. Shri. Jaiprakash Gaur, Founder Chairman of Jaiprakash Associates Limited after acquiring a Diploma in Civil Engineering in 1950 from the University of Roorkee (now Indian Institute of Technology Roorkee), had a stint with Govt. of U.P. and branched off on his own, to start as a civil contractor in 1958, group is the 3rd largest cement producer in the country

Jaypee Group is five decade old conglomerate based in Noida, India, involved in various industries that include Engineering, construction , Cement, Power, Hospitality, Real Estate, Expressways, Highways, Education and Social Commitment.


The groups cement facilities are located today all over India in 10 states, with 18 plants having an aggregate cement production capacity of 24 Million Tonnes and same is poised to become 36 Million Tonnes before October 2011

SPREAD OF THE COMPANY:

CEMENT

Jaypee Group is the 3rd largest cement producer in the country. The group produces special blend of Portland Pozzolana Cement under the brand name 'Jaypee Cement' (PPC). The company is in the midst of capacity expansion of its cement business in Northern, Southern, Central, Eastern and Western parts of the country and is slated to be 35.90 MnTPA by FY12 (expected) with Captive Thermal Power plants totaling 672 MW

ENGINEERING & CONSTRUCTION

The Engineering and Construction wing of the Group is an acknowledged leader in the construction of multi-purpose River Valley and Hydropower projects. It has the unique distinction of having simultaneously executed 13 Hydropower projects spread across 6 states and the neighboring country Bhutan for generating 10,290 MW power

SPORTS

The Group finished the construction and execution of India's first ever F1 Grand Prix on 30th October, 2011. In addition to F1, the track will also host other top-level international motorsports events from 2012 onwards.

HOSPITALITY

The Group's hospitality business owns and operates 6 properties spread across New Delhi, Uttar Pradesh and Uttarakhand. The 4 Five Star Hotels, two in New Delhi and one each in Agra and Mussoorie have a total capacity of 644 rooms. Another 5 star luxury with state-of-the-art resort and SPA has been set up in collaboration with SIX SENSES at Greater Noida with 170 living spaces.

EDUCATION

"People of resources must contribute towards making a better tomorrow for all". Shri Jaiprakash Gaur ji, Founder Chairman of the Group firmly believes that quality education on an affordable basis is the biggest service which, as a corporate citizen, we can provide. Education is the cornerstone to economic development and the strength of 1 billion Indians can be channelized by education alone to build India into a developed nation

## REAL ESTATE AND EXPRESSWAYS

The Group is a pioneer in the development of India's first golf centric Real Estate. Jaypee Greens - a world class fully integrated complex consists of an 18 hole Greg Norman Golf Course. Stretching over 452 acres, it also includes residences, commercial spaces, corporate park, entertainment and nature in abundance. Jaypee Greens also launched its second project in Noida in November 2007. India's First Wish Town, is an Integrated Township spread over 1162 acres of land comprising one 18 hole and two 9 hole golf facility & world class residences.

## SOCIAL COMMITMENTS

The Group has always believed in "growth with a human face" and to fulfill its obligations it has set up Jaiprakash Sewa Sansthan (JSS), a 'not-for-profit trust' which primarily serves the objectives of socio – economic development, reducing the pain and distress in society. For over 4 decades now, Jaypee Group has supported the socio-economic development of the local environment in which it operates and ensured that the economically and educationally challenged strata around the work surroundings are also benefited from the Group's growth by providing education, medical and other facilities for local development

LEADERS OF THE JAYPEE GROUP


THE LOGO OF JAYPEE MEDICAL CENTER:


ABOUT THE LOGO:-

The leaf represents that we are environment friendly and follow medication safety. The sharp edges and corners represent the modern side (cutting edge technology and world class infrastructure) and the rounded corners represent the patient-care side of Jaypee Medical Center. The Blue in Jaypee is identified with Confidence, Credibility and

Competence, represents Jaypee Medical Center's multi-disciplinary capability, cutting edge technology and service foundation built on world-class infrastructure and processes.The Orange represents the vibrancy, high energy and 'lets make it happen' attitude of our people.The Orange in leaf and Medical Center represents that we are a New Life in the group which is supported by Blue Leafs and J of Jaypee Group as pillar of strength.

VISION / MISSION - JAYPEE MEDICAL CENTER:

VISION:-

Promoting healthcare to the common masses with the growing needs of society by providing quality and affordable medical care with commitment."

(Founder Chairman's Vision on Healthcare)

MISSION:-

"The Jaypee Group is committed to meet the healthcare needs of the population in Noida and the surrounding regions through building Jaypee Medical Center as a super specialty hospital with advanced healthcare facilities, the latest diagnostic services, and state-of-the-art technology focused on medical specialties that meet the needs of the population. The Jaypee Medical Center will be the ultimate choice for medical care."

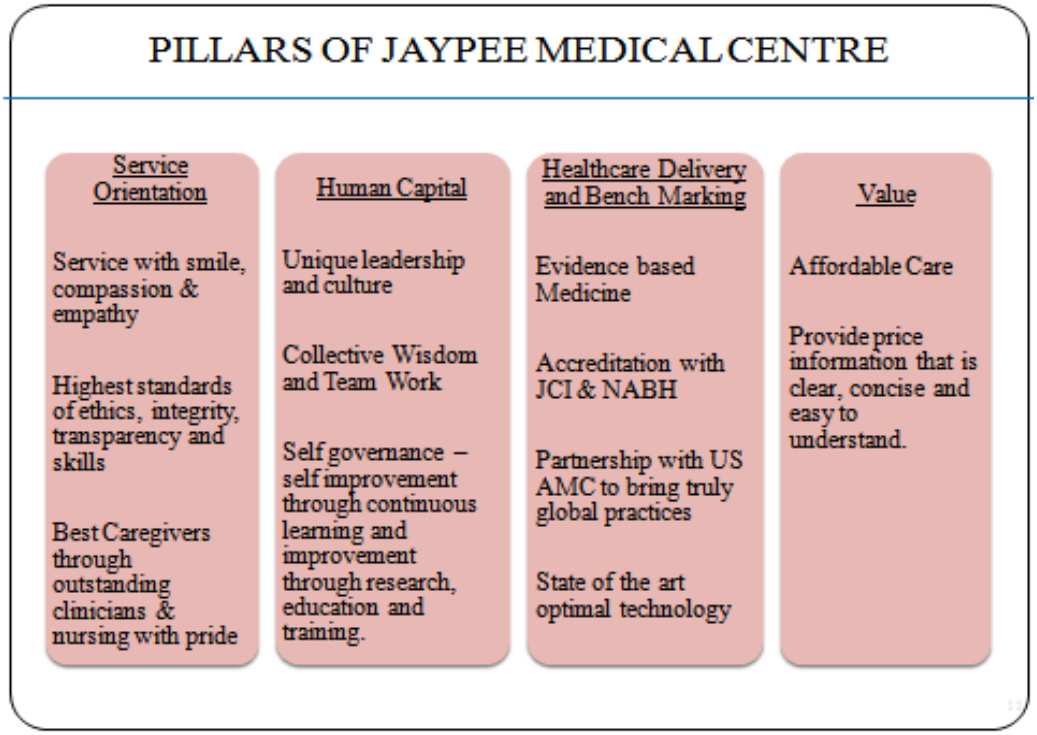
HEALTHCARE PHILOSOPHY:-

Three Secondary care medical facilities currently operational at –Bhutan, Rewa (M.P) & Baspa (H.P) providing care to approximately One million lives treated annually.

Other Healthcare Initiatives - Medical Camps, Pulse Polio Camps, Maternity camps, Health Checkup of Village Children, Health & Hygiene Awareness Camps

Mobile Medical Van (with Lab and other diagnostic facilities) Diagnosis and medicine distribution free of cost (about 100 patients per day).

PILLARS OF JAYPEE MEDICAL CENTRE:-




OVERVIEW OF JAYPEE MEDICAL CENTER:-

Flagship Hospital of the Jaypee Group

Spread over 110000 Square Meters of campus

Total Beds: 1000 beds. (507 Beds in Phase 1)

Proposed Nursing School on campus

Would be a LEED Certified building

Would target for Joint Commission International accreditation in first year

SERVICES TO BE OFFERED:

## CENTERS OF EXCELLENCE

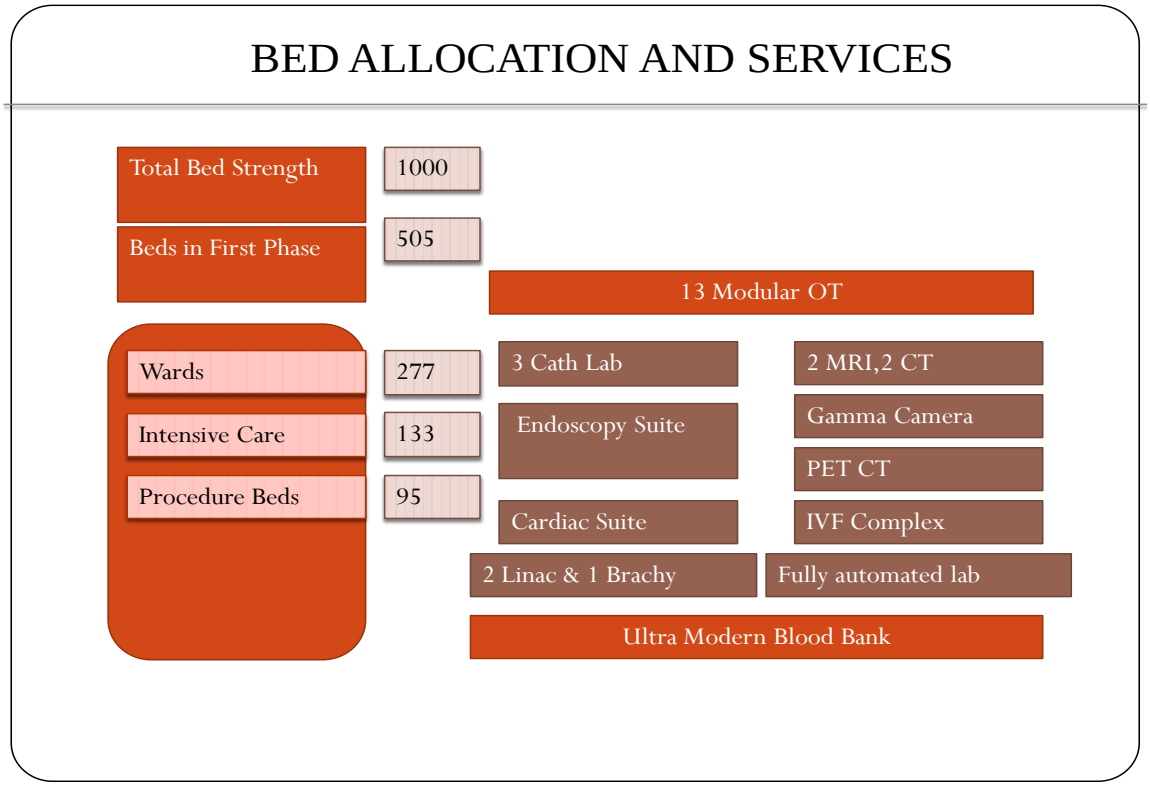
Specialties and Super Specialties:

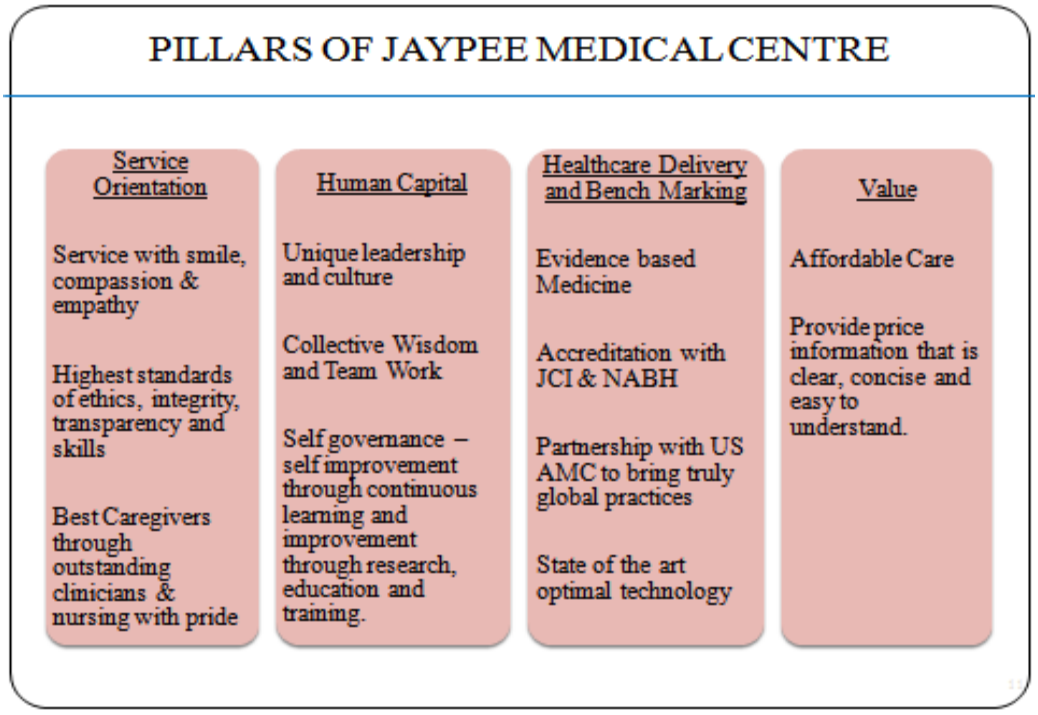
- Cardiac Science
- Neuro science
- Bones and Joints
- Minimal invasive surgery
- Cancer Unit
- Critical Care Medicine
- Trauma
- Mother & Child Care
- Gastroenterology
- GI Surgery
- Internal Medicine
- General Surgery
- Endocrinology/Rheumatology
- Urology & Nephrology
- Physical Medicine
- Rehabilitation Services
- Advanced Diagnostics-Lab Medicine/Radio Imaging/Transfusion Medicine
- Aesthetic Medicine Centre
- Behavioral Science

Floor wise departmental planning:

| Sl. No. | FLOOR | DEPARTMENTS |
|---|---|---|
| 1 | Seventh | Wards |
| 2 | Sixth | Wards |
| 3 | Fifth | Wards |
| 4 | Service | IT Server, AHU, PTS station and MEP |
| 5 | Fourth | OT Complex, ICCU, Cath lab. |
| 6 | Third | Economy Bed, IVF, MICU, SICU, NICU, LDR. |

| | | |
|---|---|---|
| 7 | Second | Chemotherapy,Cosmetology,Endoscopy,Physiotherapy, Paediatric, Office. |
| 8 | First | Behavioural science, Orthopaedics, Neurology, Gen. Surgery/MAS, Pulmonology, Ophthalmology, Dental, ENT, Diabetes Cardiac. |
| 9 | Ground | Executive Health Check up, Dialysis, Radiology, Day care, Emergency and Trauma, Pharmacy. |
| 10 | Upper basement | Blood Bank, Pathology Laboratory, Nuclear medicine, Kitchen, Administration. |
| 11 | Lower basement | Bio-medical Eng., Radiation Oncology, Laundry, Mortuary, CSSD. |






OVERVIEW OF JAYPEE MEDICAL CENTER:-

Flagship Hospital of the Jaypee Group

Spread over 110000 Square Meters of campus

Total Beds: 1000 beds. (507 Beds in Phase 1)

Proposed Nursing School on campus

During my internship, I did another project titled as "Detailed Analysis of the Market Size/Share, Companies, Brands, Price Points of the Cardiac Stents and Orthipaedic Implants that are used in a Healthcare Facility." The objectives of the study were

1.To study the share of Coronary Angiography, Angioplasty and CABG (Coronary Artery Bypass Grafting) of major hospitals of Delhi-NCR

2.To study the share of the Companies manufacturing Cardiac stents amongst major hospitals of Delhi-NCR

3.To study the share of Drug Eluting Stents amongst major hospitals of Delhi-NCR

The methodology used for the study was

Study Design-This was primarily a hospital based, descriptive, cross sectional study.

Sample size- Major Seven private hospitals in Delhi-NCR specialized in cardiac care were selected. The hospitals selected for the study were

Fortis Escorts Heart Institute, Okhla, Delhi

Medanta Medicity, Gurgaon

Indrapastha Apollo ,New Delhi

Sir Ganga Ram Hospital,Delhi

Metro Hospital & Heart Institute

Max, Saket,Delhi

Delhi Heart and Lung Institute

Data was collected through an interview of Cardiologists and Cath lab technicians using Structured questionnaire

The analysis of data was done using MS Excel

Conclusion of the study:

It is evident from the data that Fortis Escorts Heart Institute, Okhla, New Delhi does maximum number of Cardiac procedures followed by Medanta Medicity,Gurgaon. The reason behind high patient footfall is the highest standard of medical care provided by these hospitals. Fortis Escorts being a specialized hospital for cardiac procedures has a high brand value; vast pool of talented and experienced team of doctors and gets high number of referrals from other hospitals.

The data collected from major hospitals in Delhi-NCR shows that following cardiac stent manufacturing companies have maximum amount of market share , apart from other small companies which have minimal share in the market. The three main companies (in the descending order of market share) are

1. Abbott
2. Medtronic
3. Boston

Other companies are

Cordis, Biosensors, Vascular Concepts, Translumina, Sahajanand, HexaCath, Eurocor, Biotronic, Meril Life Sciences

Data collected shows that Drug Eluting Stents are widely used in hospitals for the reasons of longevity and reduced chances of restenosis. This single advantage reduces chances of reinterventions. However, the, Contraindications are

1. Patient having high risk of serious systemic bleeding

2. If Patient has contraindication to Anti -Platelet or Anti-coagulants

The choice of Drug eluting stents depends upon

1. Patients Preference based on financial capability
2. Clinical data and studies and FDA approval
3. Cardiologist confidence and comfort

Coronary artery disease has reached an epidemic proportions in South East Asia especially India in the recent few years. Unhealthy dietary habits, sedentary lifestyle, atherogenic dyslipidaemia and high incidence of smoking and diabetes have been largely contributory. At the same time however, better medical facilities have come up and coronary interventions and cardiac surgeries are being performed in nearly all major Indian cities, especially the metros. Growing expertise coupled with greater awareness and better affordability amongst patients will have a positive impact in the future. Availability of newer techniques such as new generation DES are bound to improve short- and long-term results.

A similar report for the Orthopaedic Implants was being prepared.

Another project included planning for the dental department in which everything related to the department was being devised starting from discussing the layout, manpower planning, hierarchy of department, number of shifts, type of trainings required, Equipment and instrument requirement, list of vendors and approximate cost, list of consumables required, list of drugs required, stationary requirement, type of registers and forms required, the policies and procedures being followed in the department, service mix, consultant engagement model and quality indicators of the department. The layout was discussed thoroughly with the experts from Corporate Hospitals so that all the space requirements as standarised by NABH are met.Micro detailing for the department was being done including the ventilation requirements,water outlets and the electrical switches etc.

**Part II: Dissertation on "Prevalence of burnout amongst doctors of seven hospitals in Delhi."**

# CHAPTER-1

## 1.1 INTRODUCTION:

*Without work, all life goes rotten,*

*But when work is soulless, life stifles and dies.*

-Albert Camus

A " soulless" workday can leave you feeling drained and used up. Soulless work dampens enthusiasm until motivation is extinguished. Skill and expertise remain, but your will to perform-the spirit within you-dies. As burnout progresses, your motivation, that mysterious force that gets you moving is damaged-in the worst cases, even destroyed.

Service providers like physicians, nurses, teachers, police officers and counselors are hardest hit. The reason why burnout is so prevalent in the human service profession is due in part to the high stress environment, emotional involvedness and outcomes that might be independent of the effort exerted by the working individual.

During the past few decades, modern hospitals and healthcare facilities have become highly dehumanized as new technologies have altered the relationship between doctor and patient. Common perceptions in the general public are "specialized physicians know more and more about less and less"; "doctors treat diseases rather than people"; "medical schools teach the science but ignore the art of medicine"; "medical technology has outpaced moral understanding" ; and "hospitals have become cold, impersonal mazes". There is an outcry from the policy makers as well as the public for respecting the patient as a person, and for taking care of the whole person through active listening, compassionate presence, and collaborative decision making. But this can only happen if we take into consideration the sufferings of physicians, as well, which often remain under reported.

Definition of Burnout

Burnout can be defined as the negative emotional/psychological state of an individual functioning in a workplace, induced as a result of prolonged emotional and interpersonal work-related stressors and mediated by individual characteristics (Golembiewski et al.1998).

Burnout is "an experience of physical, emotional, and mental exhaustion, caused by long-term involvement in situations that are emotionally demanding". Another valuable definition is "Burnout is the index of dislocation between what people are and what they have to do. It represents an erosion in values, dignity, spirit, and will and erosion of the human soul." It may manifest as depersonalisation, low productivity, and feelings of low achievement (Maslach & Leiter, 1997)

Thoughts of burnout, of becoming entirely disenchanted, disappointed, and disengaged from work, of being occupationally depleted of energy and enthusiasm are thoughts which compel us to find ways of avoiding this condition.

In its extreme form burnout has been labeled "full-term burnout" (Golembiewski, Munzenrider, & Stevenson, 1986), "loss of soul" (Walker, 1997), "professional burnout" (Kushnir, Cohen, & Kitai, 2000), "a hemorrhaging of the self' (Skovholt, 2001), and even "true cases of burnout" (Fischer, 1983). Elevated degrees of this negative state are so pervasive in our modern work culture that burnout has been described as a global pandemic (Aiken et al., 2001; Boudreau, 2000).

The term "burnout" was originally used by Freudenberger in the mid 1970s, and since then interest in this subject matter has continued to flourish. The relevance of burnout and its consequences to individuals and to industry is attested to by the growing number of reports and articles produced yearly.

Initially, burnout research described a phenomenon in helping professions such as nursing, social work, education, and law enforcement (Maslach, Schaufeli, & Leiter, 2001). Numerous empirical studies have depicted the emotional exhaustion suffered by professionals who have over-extended themselves in an effort to help others.Yet, given the abundance of research on burnout related specifically to helping professions (Maslach & Leiter, 1997; Pines & Aronson, 1988) and the amount of practitioner evidence

describing the debilitating effects of burnout on physicians, physician burnout remains empirically under-represented in the literature (Williams et al., 2001)

It is a well known fact that India faces a shortage of doctors, nurses and paramedics. These professionals are needed to propel the growing healthcare industry in India. An MCI's note on "curricular reform in undergraduate medical education" available with TOI says the current doctor-population ratio in India is 1:1700 when compared to a world average of 1.5:1000. India expects to achieve the World Health Organization's recommended norm of one doctor per 1000 population by 2028. Doctors face long working hours and enormous workloads and they become stressed and burned out from the heavy workload. If unchecked, overwork could lead to counterproductive, unhealthy, or even self-destructive behavior that may affect patient care.

In general, burnout has been correlated with various forms of negative responses to the job, including job dissatisfaction, low organizational commitment, absenteeism, intention to leave the job, and turnover. Dissatisfaction is predictive of both turnover intentions, which indicate that one is disengaging from the job and seriously considering other options, and actual turnover behavior, which is the ultimate withdrawal from a job. There is a need is to focus on retention, and to ensure that Doctors experience fulfilling and sustainable careers. While individuals can cope with the symptoms of burnout, the only way to truly prevent burnout is through a combination of organizational change and education for the individual. Organizations address these issues through their own management development, but often they engage external consultants to assist them in establishing new policies and practices supporting a healthier worklife.

In the Texas Medicine article, "Stress, Burnout and Addiction", Dr. Herbert Munden (1999) describes the situation like this: "I think there are thousands and thousands of doctors out there who just don't care whether they live or die because they are so unhappy". He also believes that "stress and burnout are the major sicknesses of society, but everybody's in denial".

Burnout is one of the important issues discussed in the organizations across globe. The researchers have carried out many researches globally to curtail the level of burnout to minimize the negative consequences in the organization. The people who are in the service industry are more exposed to burnout because they experience more demanding

job requirements. Burnout affects more than half of doctors, according to researchers at the University of Rochester School of Medicine. Beyond mere job dissatisfaction, these doctors are emotionally exhausted to the point where they lose focus and their performance can hurt someone else: patients. They tend to be more depressed perhaps one reason why doctors have a higher suicide rate than the general population. It's no secret that burnout among doctors is rising, in part due to the frustrations of practicing medicine compounded by an uncertain health reform environment

Gunderson (2001) in her article, "Physician Burnout" (Canadian Medical Association,2001) points out, "for the most part, burnout in physicians does not differ from that of other professions, but physicians' reactions may be unique in some respects, in part because burnout in physicians can have devastating consequences for patients". As such, the importance of recognizing and responding to burnout becomes all the more urgent when experienced by individuals whose work directly impacts the health and well being of others.

Burnout among doctors is not confined to any region, community or race. It is a phenomenon increasingly being recognized, measured and deliberated upon. The Annual Meeting of the European Forum of Medical Associations and WHO, in 2003 called for more attention to physician burnout. In Australia, emergency physicians and hospital consultants have been found to have high rates of burnout. Another study reports that cardiology residents in Argentina suffer from burnout. A study in Canada (Sandra Cahoon, 2003) shows more than 46% of the doctors in advanced burnout state. Similar results have been obtained from a study in Alberta (Goodfellow, 2003) where more than 50% doctors were found to be burnt out. A study done in Netherlands (Linzer et al., 2002) and another one in New Zealand (Boudreau, 1998) show similar results while in the UK, the rate of physician burnout has been estimated between 25 to 40%. A recent study conducted by the Health and Social Services Employee's Union has revealed that the rates of professional burnout are high among healthcare professionals in Turkey.The study report was released on the occasion of Medicine Day, which celebrates healthcare workers in Turkey every year on March 14. The study revealed that most healthcare providers are not content with their professions and their workplaces.

In an article from the Lancet, burnout is attributed to the dehumanization of modern medicine and the ways in which technology has altered the doctor-patient relationship.

Burnout is defined by symptoms of emotional exhaustion, depersonalization and a decreased sense of self-efficacy. The authors attribute burnout to a crisis of meaning and identity, the result of working in a "technocentric, dehumanized and financially driven environment, often with a broken and unjust system of healthcare." This list could go on.

It is evident that the phenomenon of burnout has been studied widely across the world. However, in a country as huge and as populous as India, very little meaningful work has been done in this area. The health care scenario in India presents a sorry state of affairs. Huge disease burdens are imposed on a mammoth population, a large chunk of which live in abject poverty and have no means of supporting themselves in the face of a health calamity. Against this backdrop, an average doctor in a public health facility is faced with inhuman patient load, severe crunch of resources, shortage of well trained subordinates or support system, higher risks of occupational hazards, apathy of the management and huge patient expectations. This is the story which repeats itself day after day and doctors are expected to deliver against these odds.

The private care scenario is somewhat similar to that in the developed world. The doctors work in a technocentric, dehumanised, and commercially driven environment. They have to ward off stiff competition to survive in the industry and face high risks of litigation. Keeping these factors in mind, it is expected that burnout levels in India too, would be high.

This study attempts to provide some insight into the burnout levels in the Indian context through a survey of a sample of doctors in the state of Delhi.

## 1.2 Objectives of the study

The study attempts to discover the facts pertaining to burnout in doctors. The objectives of the study are

1. To find out the levels of burnout amongst doctors practicing in Delhi

2. To find out the relation between burnout and demographic variables such as age, gender, speciality, organisation, designation and time devoted to hobbies /areas of special interest.

Variables of the Study

Independent Variables

- Age
- Gender
- Organization (Govt. /private)
- Designation
- Speciality
- Time spent on hobbies/areas of special interest

Burnout Components

- Emotional exhaustion
- Depersonalisation
- Lack of personal accomplishment

## 1.3 LITERATURE REVIEW:

It seeks to explore the origin of the concept of burnout and its evolution into a well recognized phenomenon. It also attempts to understand the work that has been done on this concept vis-a-vis the medical profession. The burnout phenomenon as applied to the profession has a whole new dimension and that is the devastating effect it can have on patient outcomes.

The Burnout Concept

The term burnout was first used by Herbert Freudenberger in 1974. Freudenberger, a highly dedicated psychoanalyst observed a series of symptoms in himself that reduced him to an exhausted, emotionally distressed and frustrated individual. He labeled this phenomenon as burnout.

The term so aptly described the depleted psychological and physiological states of helping professionals that it was readily adopted across the service professions and by researchers. Thereafter, the research on burnout concept saw rapid strides.

Pines and Maslach (1978) describe burnout as a syndrome of somatic and psychological exhaustion with multiple classifications. Burnout manifests as a subjective feeling of dysphoria, impacting on physical and emotional aspects of one's wellbeing, and leading to a reduction of behavioural activity and motivation, and the debilitation of one's efforts to perform (Maslach & Jackson, 1982). Moreover, burnout results from the inability to stabilize internal and/or external needs, and as a' consequence inhibits the allocation of energy resources effectively (Maslach & Leiter, 2005). Burnout may also result from a situation where minimal rewards are bestowed for a goal in which a large investment was made (Rupert & Morgan, 2005; Schaufeli 2004).

In two empirical studies, Maslach and Pines (1977, 1978) documented the symptom of somatic and psychological exhaustion, accompanied by a lack of sleep and headaches, amongst a sample of nurses. These symptoms were found to precipitate cynicism between colleagues, negativity towards patients, withdrawal from social contact within the workplace environment, and performance at bare minimum standards. Finally, nurses who were found to exhibit this sequence of symptoms reported disappointment and dissatisfaction across many domains, including disappointment with themselves.

Research on burnout began to unfold through clinical studies, allowing the construct to become recognized, at least in the health sector (Ahola & Hakanen, 2007; Montgomery, Panagopoulou, & Benos, 2006).

Moreover, burnout has been associated with negative workplace behaviours such as increases in sick leave, premature retirement (resignation), alcohol abuse, increases in smoking and tea/coffee consumption, familial, social, and economic problems, workplace accidents, interruptions in the provision of quality of service, low morale, and frequent job changes (Bakker et al., 2000; Leiter et al., 2007). Due to its gradual onset, burnout results from the accumulation of stress that exhausts individuals to the point where their energy resources are insufficient for their attempts to survive the pressure of a situation.

The amount of research on the phenomenon of burnout renders the need for its measurement and diagnosis as imperative, especially if one considers the adverse outcomes that it generates. Consequently, burnout has been operationalised internationally based on Maslach's theoretical framework (Maslach & Jackson, 1981). This framework recognises a single syndrome defined by three components;

**(1)** Emotional exhaustion, which manifests when individuals are unable to psychologically give of themselves to the degree expected of them, and are therefore behaviourally inapt at investing in effort towards performing,

**(2)** Depersonalization, which involves withdrawal, and the distancing of oneself from colleagues and clients resorting to impersonal relationships and remote contact

**(3)** The feeling of reduced personal accomplishment, which results from negative self evaluations, and involves a decrease of productivity and the resignation of any effort to perform. This factor is also related to feelings of unhappiness and overall job dissatisfaction (Maslach, Jackson, & Leiter, 1996).

As these components were employed in numerous studies the definitions shifted slightly to enrich the burnout concept. One example comes from Boles and colleagues in their article, The Dimensionality of the Maslach Burnout Inventory across Small Business Owners and Educators, as they defined the dimensions as such:

1. Emotional exhaustion (EE) involves feelings of being depleted of energy and drained of

sensation due to excessive psychological demands.

2. Depersonalization (DP) denotes the tendency to deindividuate and dehumanize others through cynical, callous, and uncaring attitudes and behaviours.

3. Reduced personal accomplishment (PA) involves repeated efforts that fail to produce results, leading to an attitude of inefficacy and reduced –motivation (Boles, Dean, Ricks, Short, & Wang, 2000).

In order to assess burnout, Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI), which consists of 22 items that load onto the three factor structure mentioned above; emotional exhaustion (EE; nine items), depersonalization (DP; five items), and personal accomplishment (PA; eight items). The results of this inventory consist of three separate scores, one for each factor. A combination of high scores on EE and DP, and a low score on PA, correspond to a high level of burnout.

Despite the wide recognition and application of Maslach's framework, burnout's dimensionality has been questioned on several occasions, proposed by some as having a four factor structure- (Iwanicki & Schwab, 1981), and by others as comprising of five factors (Densten, 2001). The differences observed regarding the dimensional structure of burnout may be attributed to the various occupations that are assessed. For instance, Maslach and Jackson's (1981; 1986) three factor structure is supported by teachers' samples, whereas Densten's (2001) results were observed from a sample of Australian law enforcement managers. Similarly, an examination of the framework across health professionals may yield different results again. Research in the nursing industry, for instance, has drawn attention to the pronounced pressure and demanding environment of intensive care divisions within hospitals.

The Phase Model Approach

In an effort to categorize and prioritize the dimensions of burnout as outlined by the Maslach Burnout Inventory (MBI), the progressive Phase Model of Burnout, was created by Golembiewski, Munzrider, and Stevenson (1986). According to the creators, through the use of this model, accurate, manageable, burnout information could be made available

to policy makers and organizations, to assist them in reducing the effects of job burnout, The MBI subscales (Depersonalization, Lack of Personal Accomplishment & Emotional Exhaustion) were ordered by importance and divided into high (HI) and low (LO) categories. The progressive phases of burnout (levels of burnout) are as follows:

**Phase Model of Burnout**

| **Subscales** | Progressive Phases of Burnout | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | VII | VIII |
| **Depersonalization** | LO | HI | LO | HI | LO | HI | LO | HI |
| **Personal Accomplishment** | LO | LO | HI | HI | LO | LO | HI | HI |
| **Emotional Exhaustion** | LO | LO | LO | LO | HI | HI | Hl | HI |

The underlying theoretical premise of this model is the progressive virulence of burnout, with emotional exhaustion being the greatest contributor to burnout, then personal accomplishment and depersonalisation . Individuals are ranked according to the placement of their scores for each component in relation to the established medians (Golembiewski et al., 1986).

Boudreau Burnout Questionnaire (BBQ)

The research model for this study engages the components of emotional exhaustion/energy (EEE), depersonalization/personalization (DPP) and lack of/personal accomplishment (LPA) through the Boudreau Burnout Questionnaire (BBQ). This instrument was created as a practical response to some of the discrepancies and measurement ambiguities currently existing in the field of burnout research and in particular, with the Maslach Burnout Inventory, MBI (Boudreau, 2000). As indicated by Boudreau, there is a need for more questions and more general questions; a need for an

adequate measure of chronic character of burnout; a need for terms that are easily translated, not colloquial expressions, and a need for positive and negative questions (Boudreau, 2000). In a study of Alberta (Canada) physicians, the instrument demonstrated properties comparable to those of the Modified Maslach Burnout Inventory (MMBI) (Boudreau, 2002). It follows that burnout results acquired through the use of the BBQ can be used in Phase Model applications and can be compared with other burnout studies which have employed the MBI in its various forms.

# CHAPTER 2

## 2.1 METHODOLOGY:

Study Design-This is primarily a hospital based, descriptive, cross sectional study. The study was conducted in the period from January 2012 to March 2012.Seven premier private and government hospitals with adequate representation of all broad specialties were chosen. The selection of hospitals was based on convenience sampling and the questionnaires were distributed randomly to the doctors from all departments.The hospitals chosen for the study are multispecilaity hospitals with high patient load. The list of hospitals includes:

Government Hospitals

1. Hindu Rao Hospital
2. Swami Dayanand Hospital
3. ESI Hospital,Jhilmil

Private Hospitals

1. Fortis Hospital, Shalimar Bagh
2. Sant Parmanand Hospital
3. St Stephens Hospital
4. Holy Family Hospital

The independent variables used for the study includes:

- Age
- Gender
- Organization (Govt. /private)
- Designation
- Speciality
- Time spent on hobbies/areas of special interest

Sample Size- A total of 260 questionnaires were distributed and 144 were returned back which results to a response rate of 55%.Out of the 144 samples received, 15 samples were

rejected due to the inadequate/partial fulfillment of the data remaining with 129 (50%) usable samples.

Instrument for Data Collection-This study employs an instrument which has been used for several studies, notable among these being study of burnout among New Zealand healthcare workers (Boudreau, 1998), Alberta healthcare workers (Goodfellow, 2003) and burnout among Canadian physicians ( Sandra L. Cahoon, 2003). The instrument termed as Boudreau Burnout Questionnaire (BBQ) has been found to be valid and reliable after doing the psychometric analysis (Hair et al., 1998).

For almost three decades Maslach Burnout Inventory (MBI) and later its improved version Modified Maslach Burnout Inventory (MMBI) have been used to measure burnout across a range of service industry ; like in teachers, social workers, workers in hospitality industry, doctors, nurses, midwives etc. The Boudreau Burnout Questionnaire (BBQ) is an improvised version of the Modified- Maslach Burnout Inventory (MMBI).

The Boudreau burnout questionnaire is used in conjunction with the Phase model Approach developed by Golembiewski, Munzrider, and Stevenson (1986). According to the creators, through the use of this model, accurate, manageable, burnout information can be captured. The three components of burnout (Depersonalization, Lack of Personal Accomplishment & Emotional Exhaustion) are ordered by importance and divided into (HI) and low (LO) categories.

In order to measure the burnout levels, a respondent answers 30 questions in the Boudreau burnout questionnaire (10 questions each for the components depersonalization, lack of personal accomplishment and emotional exhaustion) which are randomly ordered. Each question is scored on a 7 point Likert scale with "False" at 1 and "True" at 7. Based on the cumulative score for each component an individual is categorized into HI or LO categories for each component on comparing with the median split value for that component. The median split values for the components are : 22 for depersonalization, 29 for lack of personal accomplishment and 32 for emotional exhaustion. Then using the Phase Model Approach, the respondent is classified into one of the eight phases of burnout, as shown in the following table

Table 2.1.1: **Phase Model of Burnout**

| **Subscales** | Progressive Phases of Burnout | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | VII | VIII |
| **Depersonalization** | LO | HI | LO | HI | LO | HI | LO | HI |
| **Personal Accomplishment** | LO | LO | HI | HI | LO | LO | HI | HI |
| **Emotional Exhaustion** | LO | LO | LO | LO | HI | HI | Hl | HI |

Phase definition relies on the selection of median splits to separate the burnout components into HI and LO categories. These median splits were based on the norms from previous studies using the BBQ, the New Zealand health workers study [Boudreau, 1998], Alberta Physicians Study [Goodfellow, 2003] and Canadian Physicians study [Sandra Cahoon,2003].

The next step in measuring burnout is to compress the eight phases into three for ease of understanding. These are

(i) Initial phase: I to III
(ii) Moderate phase: IV & V
(iii) Advanced phase: VI to VIII

The degree of the emotional exhaustion/energy—that is the feeling/condition of being emotionally and cognitively discharged of energy, motivation, and internal resources—was tapped through statements such as: "I feel refreshed and alert," "I wish I could relax more," "I really enjoy the prospect of getting up and going to work."

Depersonalization/ personalization—the attitude and behaviours of disengagement, avoidance, and devaluation of others—is measured by statements such as: "I really do care about my co-workers" and "I have acted in an unprofessional manner towards others in the workplace."

Lack of/personal accomplishment—the feeling/condition of self-doubt, loss of meaning, and loss of quality and productivity in relation to one's ability to accomplish the responsibilities of their job—is captured by statement like: "I believe I am building a better life for others through the work I do" and "I lack the desire and creativity to complete many tasks. The positive statements are reverse coded for analysis so that higher scores indicate greater level of burnout.

Boudreau Burnout Questionnaire statements by the three components with positive and negative signs for the positive and negative statement respectively and the statement numbers according to the questionnaire. In the table below **DPP-** depicts depersonalisation negative statements and **DPP+** depicts depersonalisation positive statements and similarly for Lack of personal accomplishment (**LPA**) and Emotional Exhaustion (**EE**) components.

Table 2.1.2 :

| **Components and signs** | **BBQ Statements** | **Statement No.** |
|---|---|---|
| DPP- | I routinely compromise the quality of my work | 10 |
| DPP- | I feel alienated and detached from my co-workers | 11 |
| DPP- | I have acted in an unprofessional manner towards others in the workplace | 15 |
| DPP- | I wish I was more tolerant of others in my job. | 18 |
| DPP- | I treat people as object or things to be manipulated in the workplace | 29 |
| DPP+ | I feel comfortable with the way I treat other in the workplace | 5 |
| DPP+ | Working with people is exhilarating for me | 16 |
| DPP+ | I acknowledge contribution of my Co-workers | 27 |
| DPP+ | I enjoy working on a team | 19 |
| DPP+ | I really do care about my co-workers | 22 |
| LPA- | I lack the desire and creativeness to complete many tasks. | 3 |
| LPA- | I have trouble living up to others' expectations | 21 |
| LPA- | At times, the constant change in available information and technologies interferes with my ability to get the job done | 23 |
| LPA- | I am tired of having to solve other people's problems | 20 |
| LPA- | At times, I question my own competence and wonder | 30 |

| | | |
|---|---|---|
| | about my ability to continue to do the job | |
| LPA+ | I try to encourage and support a collaborative work culture | 4 |
| LPA+ | I believe I am helping build a better life for other through the work I do | 9 |
| LPA+ | I can sense when other worker are having difficulties | 13 |
| LPA+ | I empower other to succeed | 14 |
| LPA+ | Others appreciate the consistent effort i bring to the job | 17 |
| EEE- | At the end of the workday I simply have nothing left to give | 6 |
| EEE- | I am still tired, even after a vacation or break away from work | 7 |
| EEE- | I regularly have emotional outbursts at work | 8 |
| EEE- | I wish I could relax more | 12 |
| EEE- | Work has become a real struggle for me | 24 |
| EEE+ | I handle work pressure better than most | 1 |
| EEE+ | I am living a rich, full life and not just surviving in my work | 2 |
| EEE+ | I really enjoy the prospect of getting up and going to work every day | 26 |
| EEE+ | I maintain a consistently high energy throughout the workday | 28 |
| EEE+ | I feel refreshed and alert | 25 |

The data collected was entered in the statistical package for social sciences (SPSS) version 16.0 and Microsoft excel for analysis.

## 2.2 Hypothesis of the study

The study attempts to understand the phenomenon of burnout amongst doctors based in Delhi by using the hypothesis, based on literature review and certain facts, that are discussed as follows:

- Hypothesis 1: Doctors in younger age group tend to have higher rates of burnout(Maslach and Leiter 2001)
- Hypothesis 2: Female doctors tend to have higher rates of burnout(McMurray et al.2000)
- Hypothesis 3: Doctors working in govt. organisation tend to have higher rates of burnout. It is safe to presume that doctors working in govt. hospitals face very high levels of workload as they have to cater to the disease burden of mammoth population. In addition lack of resources and greater occupational hazards make them vulnerable to burnout.
- Hypothesis 4: Medical Specialists tend to have higher rates of burnout (Schmoldt&Freeborn,1994)
- Hypothesis5: Resident Doctors tend to have higher rates of burnout
- Hypothesis 6: Doctors spending less time on hobbies tend to have higher rates of burnout(Edwards and Silversin 2002)

## CHAPTER 3

## OBSERVATIONS & FINDINGS:

**3.1 Respondent Analysis-** The analysis pertaining to independent variables is as follows

Age distribution of the sample:

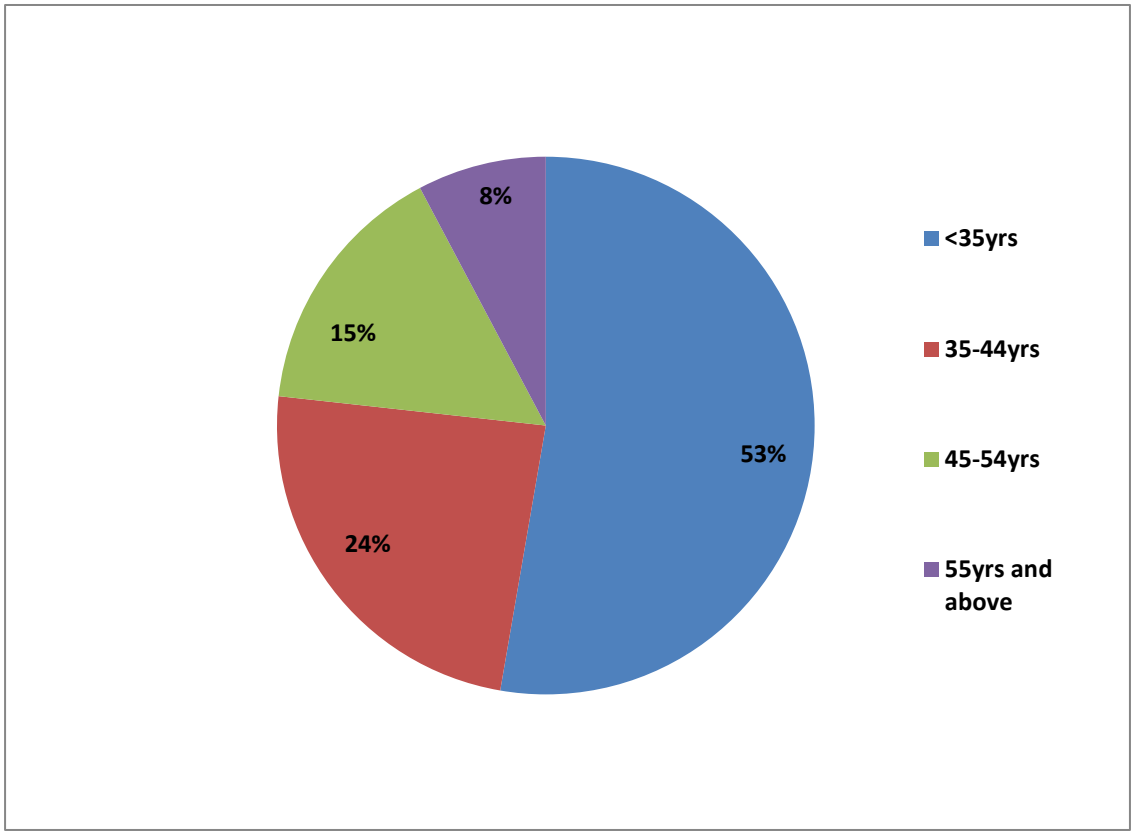



Figure 3.1.1 Age distribution of the sample

Figure 3.1.1 shows that majority of respondents (53%) are in the age group of less than 35years.Doctors above 55years constitute only 8% of the sample. The middle age groups 35-44years and 45-54years are 24% and 15% of the sample respectively.

Gender distribution of the sample:

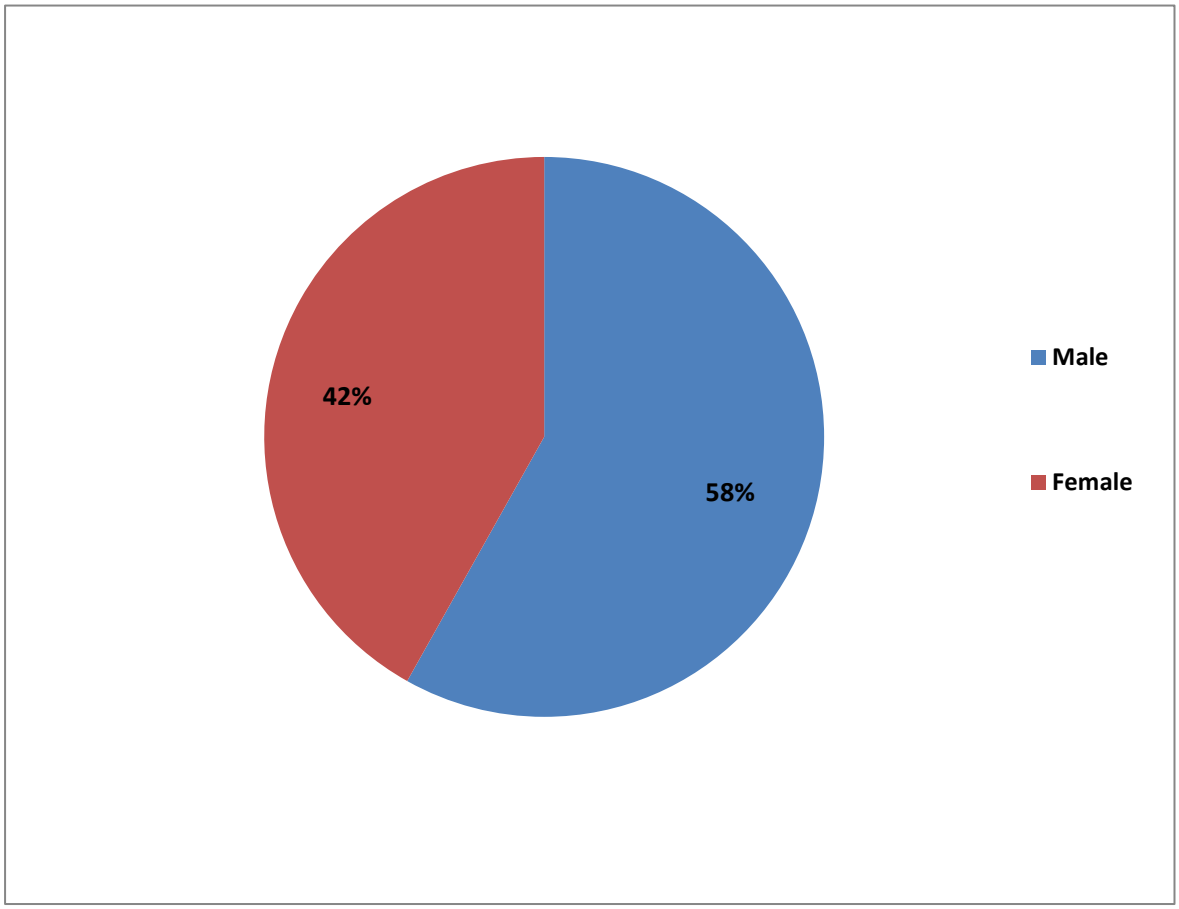



Figure 3.1.2 Gender distribution of the sample

Figure 3.1.2 shows that almost 58% of the sample is represented by males and the rest 42% by the female doctors.

Organisation to which the respondents belong:

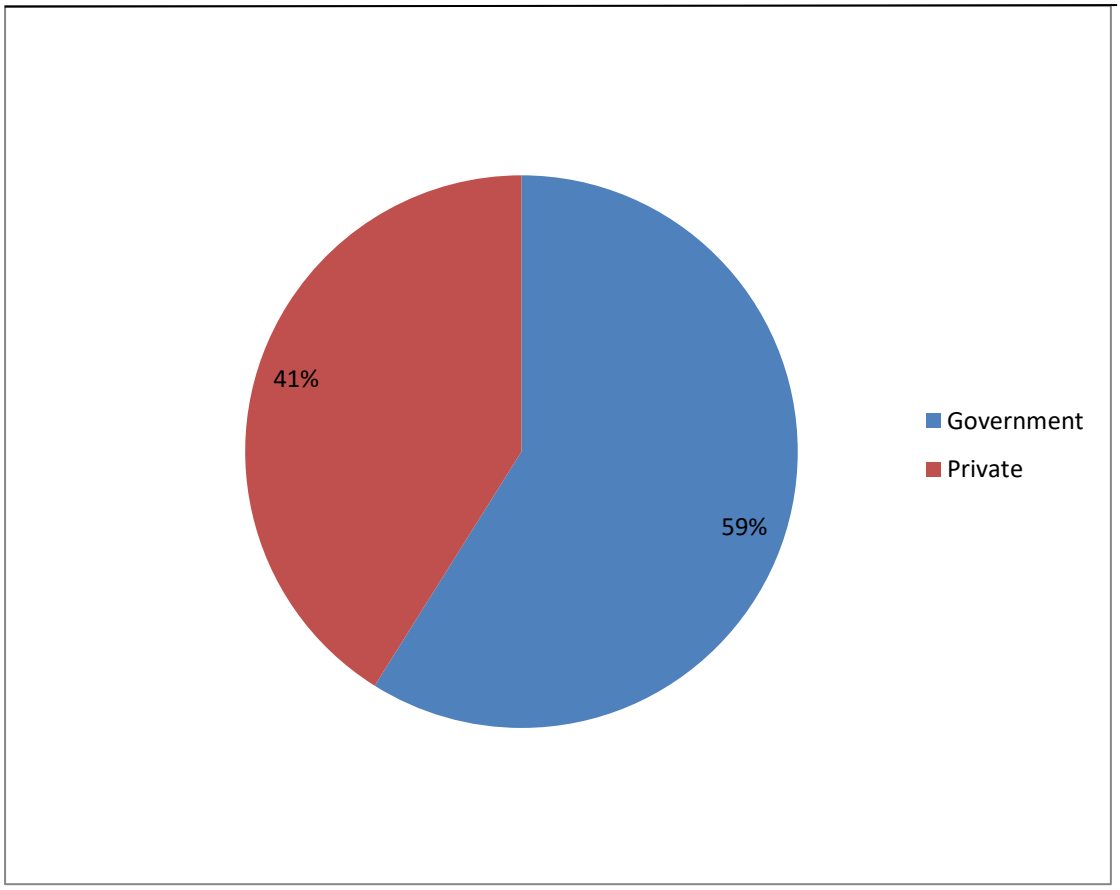



Figure 3.1.3 Organisation to which the respondents belong

Figure 3.1.3 shows that almost 59% of the respondents work in government hospital and rest 41% work in Private hospital

Speciality Profile of the Respondents:

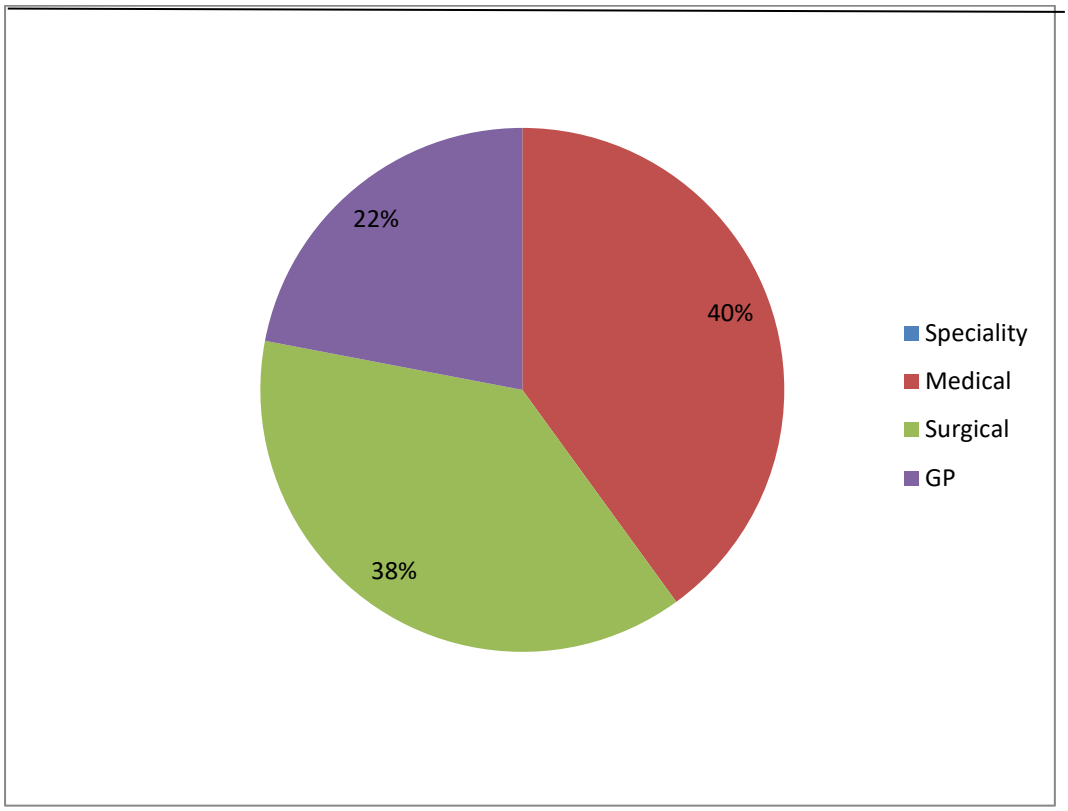



Figure 3.1.4 Speciality profile of the respondents

Figure 3.1.4 shows that the Medical and Surgical specialities are almost evenly represented at 40% and 38% respectively of the sample. The rest of the respondents are General practitioners(22%).

Designation of the Respondents

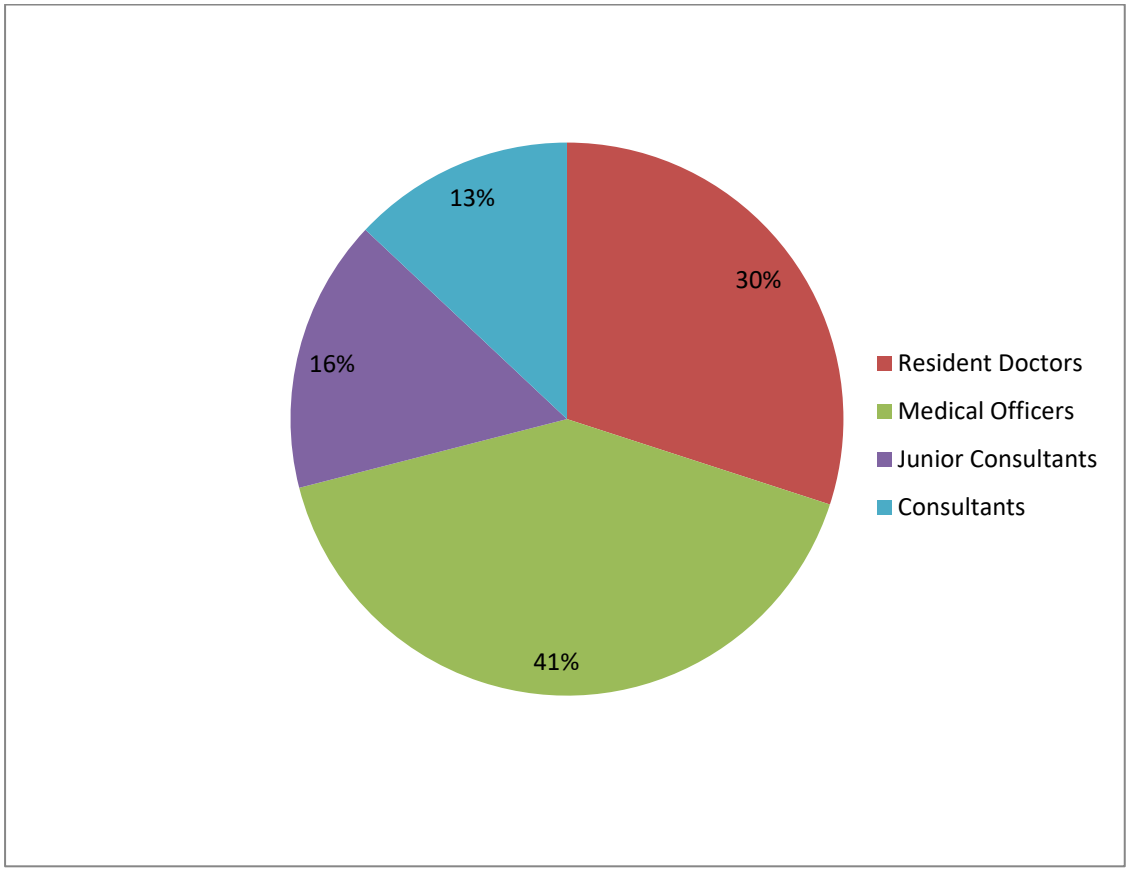



Figure 3.1.5 Designation of the respondents

Figure 3.1.5 shows that majority of the respondents are Medical officers(41%) followed by Resident Doctors(30%). Junior Consultants constitute 16% of the sample and Consultants constitute only 13% of the sample.

Time spent on hobbies or areas of special interest other than medicine(per week)

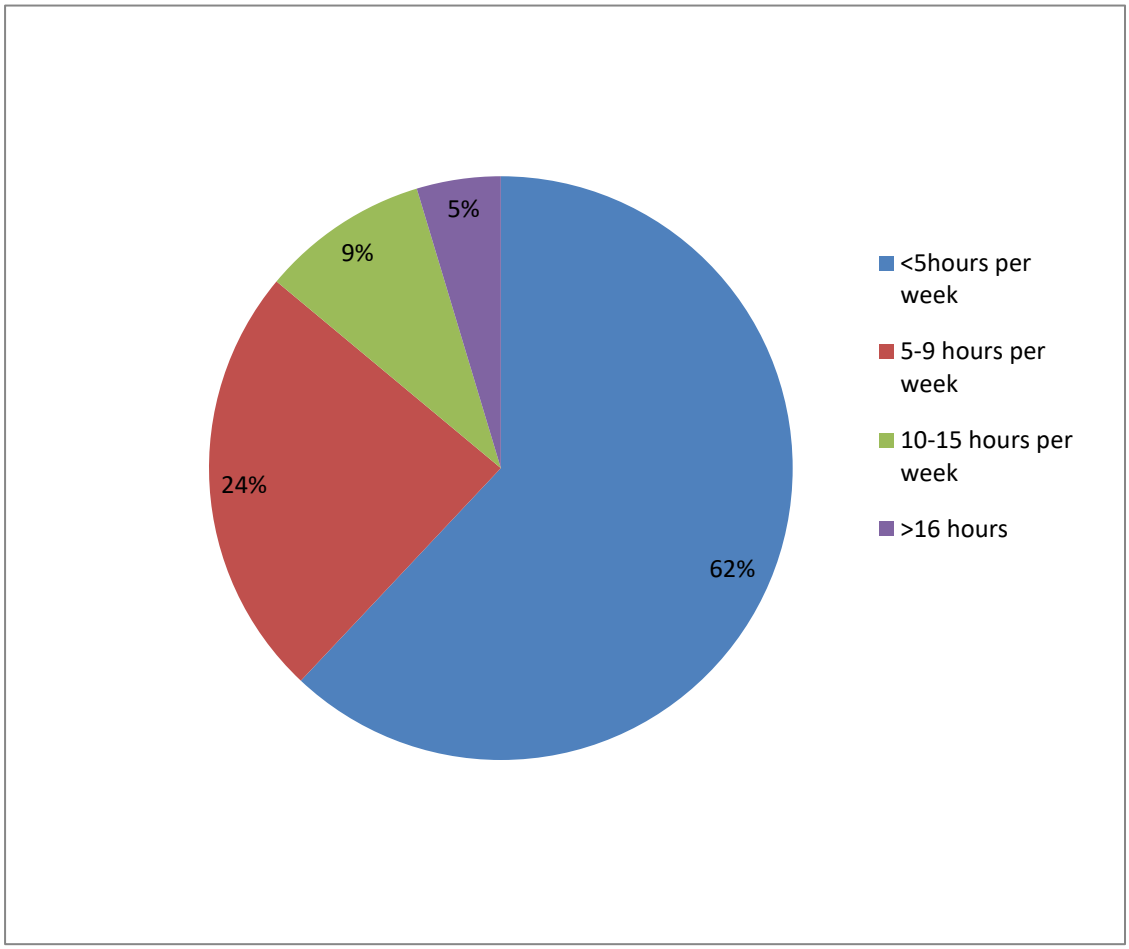



Figure 3.1.6 Time spent on hobbies or areas of interest other than medicine per week

Figure 3.1.6 shows that almost 62% of the doctors spend merely less than 5 hours in a week on hobbies or areas of special interest while 24% of doctors spend 5-9 hours in a week on hobbies or areas of interest other than medicine. Almost 5% spend more than 14 hours per week on hobbies or other areas of special interest.

### 3.2 Response analysis

The Frequency of respondents in each Phase of Burnout as prescribed by the Phase Model:

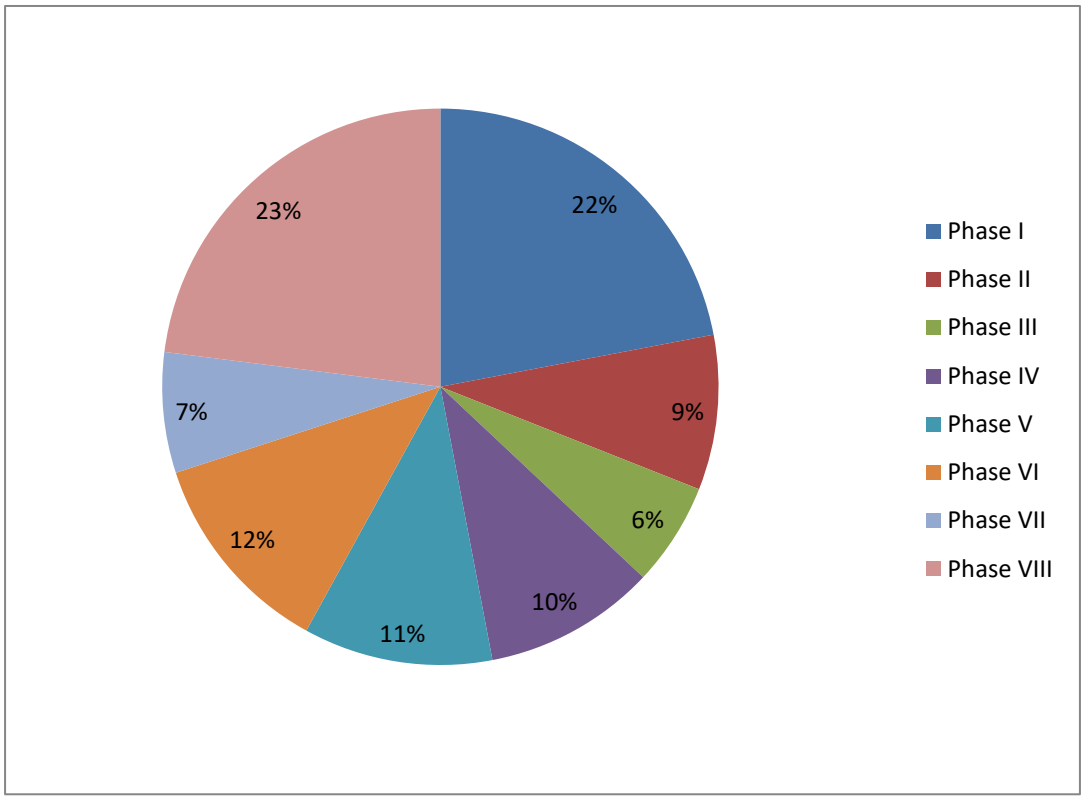



Figure 3.2.1 Frequency of respondents in each Phase of Burnout

Recalling that Phase I allocation is produced by LO scores in each of the burnout components and Phase VIII allocation by HI scores in each of the burnout components, 22 % of the sample respondents registered scores in Phase I and 23 % in to Phase VIII.

Figure 3.2.2 Frequency of respondents categorized into three Phases of Burnout:

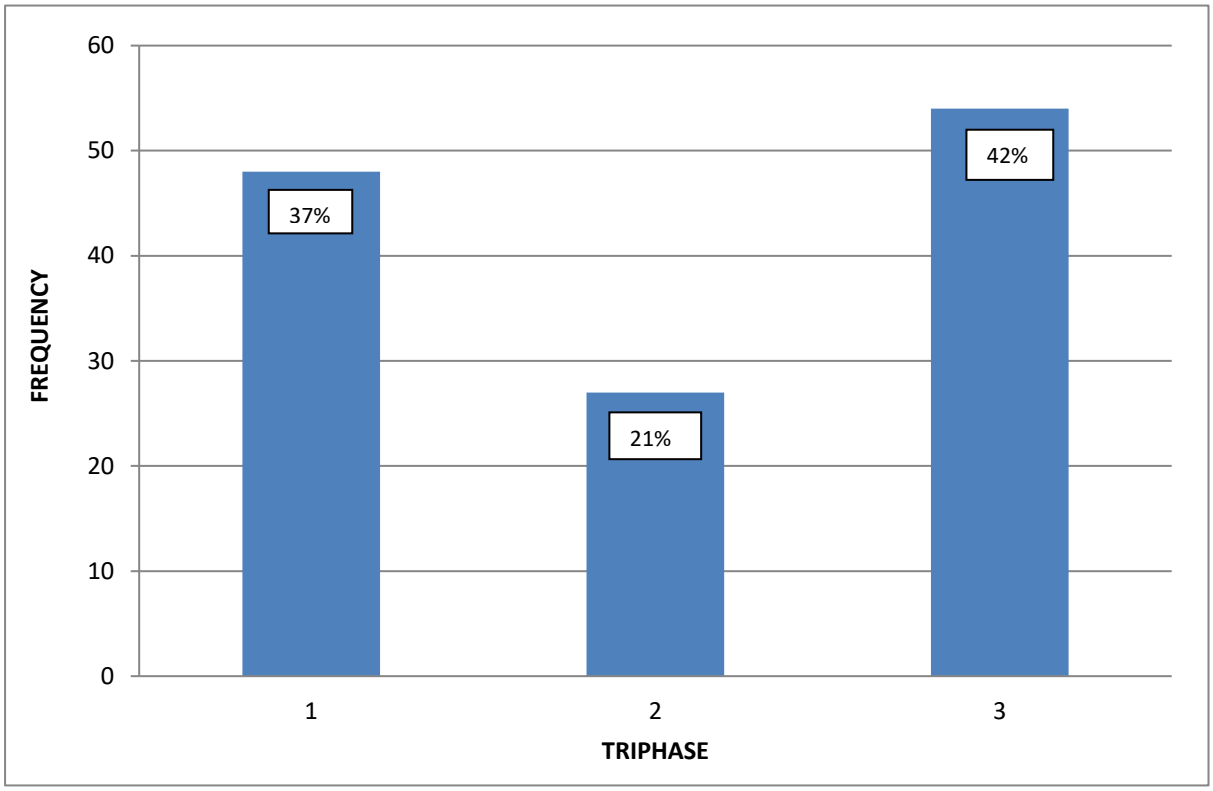



Figure 3.2.2 shows the frequency of respondents categorized into the three Phases of burnout. While collapsing the Phases in to three categories Initial (Phase I,II&III), Moderate(Phase IV &V) and Advanced(Phase VI,VII&VIII) the burnout scores are as follows:

- Initial- 37%
- Moderate- 21%
- Advanced- 42%

The result shows that nearly 42% of the doctors in the sample are in the advanced state of burnout, which should be a cause of great concern.

### 3.3 Test of Hypothesis

Age in relation to levels of Burnout:

**Age * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | Total |
| Age | <35yrs | Count | 18 | 15 | 35 | 68 |
| | | % within Age | 26.5% | 22.1% | 51.5% | 100.0% |
| | 35-44 | Count | 11 | 5 | 15 | 31 |
| | | % within Age | 35.5% | 16.1% | 48.4% | 100.0% |
| | 45-58yrs | Count | 19 | 7 | 4 | 30 |
| | | % within Age | 63.3% | 23.3% | 13.3% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Age | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.1 shows that 51.5% of respondents report advance burnout, in the age group of less than 35 years

Table 3.3.2 Chi Square Test: Age and Burnout

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 15.748[a] | 4 | .003 |

The p value is 0.003, which is less than 0.05 (α value) and hence the null hypothesis,is rejected. Thus the two variables, age and burnout are strongly related to each other.

Gender in relation to levels of Burnout:

**Gender * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | Total |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | |
| Gender | male | Count | 25 | 16 | 34 | 75 |
| | | % within Gender | 33.3% | 21.3% | 45.3% | 100.0% |
| | Female | Count | 23 | 11 | 20 | 54 |
| | | % within Gender | 42.6% | 20.4% | 37.0% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Gender | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.3 shows that 45.3% males, out of the total male respondents, are in the state of advance burnout and 37% females out of the total female respondents are in the state of advanced burnout.

Table 3.3.4 Chi Square Test: Gender and Burnout

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 1.254[a] | 2 | .534 |

Table 3.3.4 shows that the p value is 0.534 which is more than the α value (.05) and thus the difference between observations is not statistically significant and the observations are in consistent with the null hypothesis.Thus gender and burnout are not related to each other.

Organisation in relation to levels of Burnout:

**Organisation * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | Total |
| Organisation | Govt | Count | 21 | 18 | 37 | 76 |
| | | % within Organisation | 27.6% | 23.7% | 48.7% | 100.0% |
| | Private | Count | 27 | 9 | 17 | 53 |
| | | % within Organisation | 50.9% | 17.0% | 32.1% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Organisation | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.5 shows that 48.7% of doctors, out of the total working in Government hospitals are reported to be in the state of advanced burnout in comparison to 32.1% of the total respondents working in private hospitals.

Table 3.3.6 Chi Square Test: Organisation and Burnout

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 7.288[a] | 2 | .026 |

Table 3.3.6 shows that the p value is .026 which is less than the α value (0.05) and the null hypothesis is rejected. The difference is statistically significant and the two variables (organization and burnout ) are strongly related to each other.

Speciality in relation to levels of Burnout:

**Speciality * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | Total |
| Speciality | medical | Count | 14 | 14 | 23 | 51 |
| | | % within Speciality | 27.5% | 27.5% | 45.1% | 100.0% |
| | Surgical | Count | 22 | 6 | 21 | 49 |
| | | % within Speciality | 44.9% | 12.2% | 42.9% | 100.0% |
| | general practitioner | Count | 12 | 7 | 10 | 29 |
| | | % within Speciality | 41.4% | 24.1% | 34.5% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Speciality | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.7 shows that almost same number of doctors from medical and surgical specialities are in the advanced state of burnout and 34.5% of General Practitioners out of the total number of GP are in the advanced state of burnout.

Table 3.3.8 Chi Square Test : Speciality and Burnout

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 5.680[a] | 4 | .224 |

Table 3.3.8 shows that p value is .224 which is more than the α value (0.05) and thus the difference is not statistically significant. The null hypothesis is supported in this case and the two variables speciality and burnout are not related to each other.

Designation in relation to levels of Burnout:

**Designation * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | Total |
| Designation | resident doctor | Count | 13 | 11 | 15 | 39 |
| | | % within Designation | 33.3% | 28.2% | 38.5% | 100.0% |
| | medical officer | Count | 17 | 9 | 27 | 53 |
| | | % within Designation | 32.1% | 17.0% | 50.9% | 100.0% |
| | Junior Consultant | Count | 8 | 4 | 8 | 20 |
| | | % within Designation | 40.0% | 20.0% | 40.0% | 100.0% |
| | Consultant | Count | 10 | 3 | 4 | 17 |
| | | % within Designation | 58.8% | 17.6% | 23.5% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Designation | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.9 shows that almost 50% Medical officers are in the state of advanced burnout followed by Junior Consultants and Resident Doctors and Consultants have the least percentage in the advanced burnout.

Table 3.3.10 Chi Square Test: Designation and Burnout

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 6.719[a] | 6 | .348 |

Table 3.3.10 shows that p value is .348 which is more than the α value (0.05) and thus the difference is not statistically significant. The null hypothesis is supported in this case and the two variables designation and burnout are not related to each other.

Time spent on hobbies or other areas of interest in relation to levels of Burnout:

**Time spent on hobbies * Stage of burnout Crosstabulation**

| | | | Stage of burnout | | | Total |
|---|---|---|---|---|---|---|
| | | | Initial | Moderate | Advanced | |
| Time spent on hobbies | <5 hours | Count | 23 | 20 | 37 | 80 |
| | | % within Time spent on hobbies | 28.8% | 25.0% | 46.2% | 100.0% |
| | 5-9 hours | Count | 18 | 3 | 10 | 31 |
| | | % within Time spent on hobbies | 58.1% | 9.7% | 32.3% | 100.0% |
| | 10-15 hours | Count | 5 | 3 | 4 | 12 |
| | | % within Time spent on hobbies | 41.7% | 25.0% | 33.3% | 100.0% |
| | >15 hours | Count | 2 | 1 | 3 | 6 |
| | | % within Time spent on hobbies | 33.3% | 16.7% | 50.0% | 100.0% |
| Total | | Count | 48 | 27 | 54 | 129 |
| | | % within Time spent on hobbies | 37.2% | 20.9% | 41.9% | 100.0% |

Table 3.3.11 shows that 50% of doctors who spend more than 15 hours per week on hobbies or areas of special interest are also reported to be in advanced state of burnout.

Table 3.3.12 Chi Square Test: Time spent on hobbies and levels of Burnout

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 9.261[a] | 6 | .159 |

Table 3.3.12 shows that p value is 0.159 which is more than the α value (0.05) and thus the difference is not statistically significant. The null hypothesis is supported in this case and the two variables time spent on hobbies and burnout are not related to each other.

**Summary of Hypothesis and Results:**

The result shows that 42% of doctors are in the advanced state of Burnout.

- Hypothesis 1: Doctors in younger age group tend to have higher rates of burnout is supported
- Hypothesis 2: Female doctors tend to have higher rates of burnout is not supported.
- Hypothesis 3: Doctors working in govt. organisation tend to have higher rates of burnout stands supported
- Hypothesis 4: Medical Specialists tend to have higher rates of burnout is not supported
- Hypothesis5: Resident Doctors tend to have higher rates of burnout is not supported
- Hypothesis 6: Doctors spending less time on hobbies tend to have higher rates of burnout is not supported

## CHAPTER 4

## 4.1 DISCUSSION

The prime motivator for this study was the opportunity to determine the burnout levels amongst doctors in Delhi and in doing so, to support the process of burnout recognition beyond the individual level. Advanced level of burnout is like a malignant state where a person is physically ,mentally and emotionally exhausted and is incapable of mounting an optimal response to a stressor regardless of the number and severity of the stressor. Apart from having devastating effects on the individual and the patients.It can destroy happiness of families, make the victims desert the profession they toiled for all their lives and lead to substance/alcohol abuse and even suicide in extreme cases.

In India, limited evidence is there to support the prevalence of burnout in doctors. The study conducted shows that 42% of the doctors out of the total respondents are suffering from burnout and it is an alarming figure. Thus India, too, is experiencing the global pandemic of burnout. Medicine is a serious business. The agony of the sick, the bleeding, the dying coupled with superhuman expectations from the doctors day in and day out is bound to put lots of cumulative strain on their minds and burnout is a natural consequence of that.Among the respondents, 51.5% in the age group of < 35years are in advanced state of burnout and 48.4% in the age group of 35-44 years are in the advanced state of burnout.This finding is consistent with other studies(Maslach and Leiter 2001).This age is the most productive age group Younger doctors usually do relentless 36 hours shifts, going without sleep and without meals.Added to this, are the ambiguities pertaining to the career.

Doctors working in government hospitals in a city like Delhi face heavy workloads wth never ending OPD queues and wards overflowing with patients.Further there are inadequate resources ,poor working conditions, occupational hazards and salaries perceived to be not in commensurate with the workloads. No wonder doctors working in Government hospitals have higher rates of burnout and study gives evidence in support of this statement. Even the private hospitals are more focused in fulfilling their financial targets.Doctors working in private settings do have their own stressors such as higher accountability, stiff competition in the industry, the fears of litigation etc It is the prime duty of organizations to ensure that the work level environment should be conducive for the physicians. Hospitals also need to look at the employee satisfaction levels to increase the efficiency of employees.There should be some standards and guidelines ensuring a

healthy work environment for the physicians. It is imperative that the policy makers, the professional bodies and the doctors themselves take a serious note of this and move for change to mitigate this misery. We are already losing too much at the individual level, at the level of society and nation as a whole.

## 4.2 LIMITATIONS OF THE STUDY

**The following limitations to the study were observed:-**

- The study was essentially hospital based. For a more magnified view, such a study should have a broader base involving doctors running small nursing homes/hospitals and those having standalone practice.
- The study was done only in one city, Delhi. For a clearer view, samples from multiple cities, towns and rural areas also need to be taken.
- The study did not take into account workload perceptions. This variable although, difficult to measure, can provide further insight into the burnout phenomenon.
- Burnout can also be due to some other reasons like family circumstances and personal factors which have not been taken in to account in the study.

These limitations, although restricting for this study, do provide suggestions and opportunities for future research into the experience of burnout.

# CHAPTER 5

## 5.1 RECOMMENDATIONS

At the Individual level (for doctors)

- There is a need for doctors to recognise and accept that they are suffering from burnout rather than living in the state of denial
- They should adopt healthy work and lifestyle habits
- They should practice stress management techniques and seek counseling

At the Organisation level, there is a need for the management to ensure certain measures to prevent burnout amongst doctors.

- Management should establish a physician health committee,which is at par with other committees, whose function will be to review corporate decisions for their impact on physician wellness and measure physician well-being as an outcome.
- Management should establish a mentor program wherein seniors can guide and support junior doctors for career development and help them in balancing their personal and professional lives.
- Provision of periodic continuing medical education programs on various topics related to well-being.
- There should be flexible scheduling to allow time off for critical family events and leaves to pursue travel and vocational interests.
- Reduction of paperwork for doctors
- Involvement of physicians in the design and management of their practice environments.
- A sabbatical program linked to productivity incentives.
- Provision of membership in fitness center and focus on welfare and engagement programmes for doctors.
- Provision for training on Time Management skills and Stress management techniques to reduce the stress and boost productivity.

## 5.2 CONCLUSION

Preventing burnout, a responsibility of all physicians and of the health care systems and organizations in which they work, entails the explicit promotion of physician well-being.The results of the study throw some light on phenomenon of burnout in doctors. Percentage of doctors in advanced burnout stage is alarmingly high. Younger doctors and those working in government hospitals are the most likely candidates to suffer burnout. The phenomenon is seen across the specialities whether medical and surgical and both the genders are equally vulnerable to the malady. A Physician should do no harm to himself first and recognise early signs of burnout before it develops further. They should practice stress management techniques, seek counseling and adopt a healthy life style. It is very important on the part of healthcare organisations as well to give due consideration to Physician's well being as it is directly related to patient satisfaction and this is a very important indicator which is being tracked by almost all health care organisations. The healthcare organisations also have a financial stake in this because satisfaction will enhance the productivity of physicians. The satisfaction of physicians in an organization will enhance recruitment and retention of staff, saving the enormous cost of staff and physician turnover. It will even promote patient safety and reduce the probability of errors.

## 5.3 DIRECTIONS FOR FUTURE RESEARCH

A research on burnout pan India is long overdue. Such an endeavour will help in estimating the burnout levels among doctors in small and big cities and in the rural areas. This in turn should help in channelizing resources to tackle this growing problem.

An article pertaining to burnout was published in Times of India on 24 February 2011 and a part of it is reproduced below:

"A new research suggests that spit and blood tests can detect burnout before it happens." Researchers Sonia Lupien and Robert –Paul Juster of the University of Montreal also found that if burnouts are ignored they might put distressed workers at a greater risk of physical and psychological problems.

“We hypothesized that healthy workers with chronic stress and with mild burnout symptoms would have worse physiological dysregulations and lower cortisol levels – a profile consistent with burnout”, said Juster.

The levels of stress hormone cortisol are often high in people suffering from depression, while it tends to be low in cases of burnout.

The researchers found that analyzing a sample of spit was an excellent way to detect abnormally low levels of cortisol – a clear warning sign of impending burnout.

This opens new vistas for research into the burnout phenomenon. Future research on the phenomenon can attempt to relate the biochemical profile of an individual with the burnout levels which should help in predicting and treating burnout.

## REFERENCES

Adams, D. (2002). *Cost of living.* Stress is the price you pay for being a physician.* AMEDNews.com: The Newspaper for American Physicians.

Arden, J. B. (2002). *Surviving job stress: How to overcome workday pressures.* Franklin Lakes, NJ: The Career Press.

Bohmfalk, G. M. (1999). Stress, burnout, and addiction: I just had to let it go. *Texas Medicine*

Boles, J. S., Dean, D. H., Ricks, J. M., Short, J. C., & Wang, G. (2000). The dimensionality of the Maslach Burnout Inventory across small business owners and educators. *Journal of Vocational Behavior.*

Boudreau, R. A. (1998a, December 2-3). The *occupational health and burnout of New Zealand workers.* Paper presented at the An International Colloquium, Lethbridge, Alberta, Canada.

Canadian Medical Association. (1998a). *Physician health and well being.* CMAJ.

Farber, B.A. (Ed.): (1983). *Stress and burnout in the human service professions.* New York, NY: Pergamon Press

Franke, J. (1999). Stress, burnout, and addiction: Back from the brink (Cover story, Part one). *Texas Medicine*

Freudenberger, H. H. (1980). *Burn Out The high cost of high achievement.* Garden City, NY: Anchor Press.

Golembiewski, R., Boudreau, R., Munzenrider, R. F., & Luo, H. (1996). Global burnout: *A worldwide pandemic explored by the Phase Model*. Greenwhich, CT: JAI Press.

Golembiewski, R., Boudreau, R., Sun, B., & Luo, H. (1998). Estimates of burnout in public agencies: Worldwide, how many employees have which degrees of burnout, and

with what consequences. *Public Admistration Review*

Golembiewski, R. T., Munzenrider, R. F., & Stevenson, J. G. (1986). *Stress in organizations: Towards a Phase Model of burnout.* New York, NY: Praeger.

Goodfellow, R. (2003). *Alberta physician burnout.* Master's thesis, The University of Lethbridge, Alberta Canada.

Graham, J., Potts, H. W., & Ramirez, A. J. (2002, Dec 14). *Stress and burnout in doctors. The Lancet, 360, 1975-1976.*

Gunderson, L. (2001). Physician burnout. *Annals of Internal Medicine*

Harrison, W. D. (1983). A social competence model of burnout. In B. A. Farber (Ed.), *Stress and burnout in the human service professions*

Kalliath, T. J., O'Driscoll, M P., Gillespie. D. F., & Bluedorn, A. C. (2000). A test of the Maslach Burnout Inventory in three samples of healthcare professionals. Work & Stress

Kushnir, T., Cohen, A. H., & Kitai. E. (2000). Continuing medical education and primary physicians' job stress, burnout. and dissatisfaction.

Martin, S. (2001). More hours, more tired, more to do: Results from the CMA's 2002 Physician Resource Questionnaire [Electronic version]. CMAJ, 167(5), 521522.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it.*

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*

Spickard, J. A., Gabbe, S. G., & Christensen, J. F. (2002). *Mid-career burnout in generalist and specialist physicians*

Wessels, D. T., Jr., Kutscher, A. H., Seeland, 1. B., Selder, F. E., Cherico, D. J., & Clark,

E. J. (Eds.). (1989). *Professional burnout in medicine and the helping professions.*

**APPENDIX I**

# Questionnaire for Measuring Burnout Amongst Doctors

I am a student of hospital management at IIHMR, Delhi. I am carrying out a research on the prevalence of burnout amongst doctors, keeping in view, the physical and mental exhaustion suffered by them from working under difficult and demanding situations. I would be highly obliged if you would kindly fill up this questionnaire. I hereby declare that the data collected would solely be used for academic purpose and not be shared with any other organizations or research projects. It should take only 10 minutes of your precious time.

Thanking you in anticipation

……

## Demographic Profile

1. Age: ……..

2. Gender : ☐ Male ☐ Female

3. Organization: ☐ Private ☐ Government

4. Speciality: ☐ Medical ☐ Surgical

5. Designation: ☐ Resident ☐ Medical Officer ☐ Junior Consultant ☐ Consultant

6. Years in Service: ……

7. Marital Status: ☐ Single ☐ Married

8. Family Structure: ☐ Joint ☐ Nuclear

9. Time (approx) spent on hobbies or areas of special interest other than medicine (**per week**)
   Hours: …….

10. Which place do you belong to (native place): ……..

11. Since how long have you been residing in Delhi: ……..years

12. Do you have your own clinic: ☐ Yes ☐ No

Please encircle the most appropriate number based on the degree to which the statement is currently false and true for you. **Number 1** represents the statement is completely false for you and **Number 7** represents the statement is absolutely true for you

| | **Completely False** | | | | | | **Absolutely True** |
|---|---|---|---|---|---|---|---|
| **1.** I handle work pressures better than most of the other doctors | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **2.** I am living a rich, full life and not just surviving in my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **3.** I find it difficult to complete many tasks | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **4.** I try to encourage and support a collaborative work culture | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **5.** I feel comfortable with the way I treat others (colleagues and patients) in the workplace | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **6.** At the end of the workday I don't feel like doing anything | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **7.** I am still tired, even after a vacation or break away from work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **8.** I regularly have emotional outbursts at work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **9.** I believe I am helping build a better life for others through the work I do | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **10.** I routinely compromise the quality of my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **11.** I feel alienated and detached from my co-workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **12.** I wish I could relax more | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **13.** I can sense when other workers are having difficulties | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **14.** I empower others to succeed | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **15.** I have acted in an unprofessional manner towards others in the workplace | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **16.** Working with others is exhilarating for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **17.** All who work with me appreciate the consistent effort I bring to the job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **18.** I wish I was more tolerant of others in my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **19.** I enjoy working on a team | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **20.** I am tired of having to solve other people's problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **21.** I have trouble living up to others expectations | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **22.** I really do care about my co-workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | **Completely False** | | | | | | **Absolutely True** |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**23.** At times, the constant change in available information and technologies interferes with my ability to get my job done

**24.** Work has become a real struggle for me

**25.** I feel refreshed and alert

**26.** I really enjoy the prospect of getting up and going to work every day

**27.** I really acknowledge the contribution of my co-workers

**28.** I maintain a consistently high energy flow throughout the workday

**29.** I treat people as objects or things to be manipulated in the workplace

**30.** At times I question my own competence and wonder my ability to continue to do the job.

## APPENDIX II

### Data representation on Excel

| S No. | DPP | DPP SCORE | LPA | LPA SCORE | EE | EE SCORE | PHASE | TRIPHASE |
|---|---|---|---|---|---|---|---|---|
| 1 | 17 | LO | 21 | LO | 33 | HI | 5 | MOD |
| 2 | 17 | LO | 23 | LO | 32 | HI | 5 | MOD |
| 3 | 30 | HI | 28 | LO | 36 | HI | 6 | ADV |
| 4 | 24 | HI | 29 | HI | 31 | LO | 4 | MOD |
| 5 | 19 | LO | 20 | LO | 30 | LO | 1 | INI |
| 6 | 23 | HI | 24 | LO | 24 | LO | 2 | INI |
| 7 | 37 | HI | 33 | HI | 33 | HI | 8 | ADV |
| 8 | 27 | HI | 26 | LO | 40 | HI | 6 | ADV |
| 9 | 37 | HI | 30 | HI | 40 | HI | 8 | ADV |
| 10 | 26 | HI | 25 | LO | 50 | HI | 6 | ADV |
| 11 | 24 | HI | 28 | LO | 42 | HI | 6 | ADV |
| 12 | 22 | HI | 24 | LO | 32 | HI | 6 | ADV |
| 13 | 10 | LO | 22 | LO | 23 | LO | 1 | INI |
| 14 | 31 | HI | 24 | LO | 39 | HI | 6 | ADV |
| 15 | 18 | LO | 25 | LO | 32 | HI | 5 | MOD |
| 16 | 22 | HI | 17 | LO | 27 | LO | 2 | INI |
| 17 | 18 | LO | 19 | LO | 21 | LO | 1 | INI |
| 18 | 29 | HI | 31 | HI | 29 | LO | 4 | MOD |
| 19 | 29 | HI | 28 | LO | 45 | HI | 6 | ADV |
| 20 | 21 | LO | 29 | HI | 36 | HI | 7 | ADV |
| 21 | 24 | HI | 22 | LO | 39 | HI | 6 | ADV |
| 22 | 31 | HI | 34 | HI | 32 | HI | 8 | ADV |
| 23 | 21 | LO | 22 | LO | 10 | LO | 1 | INI |
| 24 | 31 | HI | 30 | HI | 38 | HI | 8 | ADV |
| 25 | 40 | HI | 35 | HI | 38 | HI | 8 | ADV |
| 26 | 16 | LO | 23 | LO | 26 | LO | 1 | INI |
| 27 | 28 | HI | 26 | LO | 38 | HI | 6 | ADV |
| 28 | 31 | HI | 26 | LO | 37 | HI | 6 | ADV |
| 29 | 37 | HI | 31 | HI | 35 | HI | 8 | ADV |
| 30 | 34 | HI | 25 | LO | 35 | HI | 6 | ADV |
| 31 | 27 | HI | 20 | LO | 18 | LO | 2 | INI |
| 32 | 26 | HI | 23 | LO | 22 | LO | 2 | INI |
| 33 | 18 | LO | 10 | LO | 27 | LO | 1 | INI |
| 34 | 21 | LO | 26 | LO | 19 | LO | 1 | INI |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 35 | 34 | HI | 32 | HI | 46 | HI | 8 | ADV |
| 36 | 18 | LO | 31 | HI | 24 | LO | 3 | INI |
| 37 | 31 | HI | 35 | HI | 46 | HI | 8 | ADV |
| 38 | 28 | HI | 34 | HI | 29 | LO | 4 | MOD |
| 39 | 21 | LO | 29 | HI | 34 | HI | 7 | ADV |
| 40 | 20 | LO | 23 | LO | 53 | HI | 5 | MOD |
| 41 | 24 | HI | 24 | LO | 21 | LO | 2 | INI |
| 42 | 38 | HI | 31 | HI | 39 | HI | 8 | ADV |
| 43 | 33 | HI | 29 | HI | 32 | HI | 8 | ADV |
| 44 | 38 | HI | 28 | LO | 51 | HI | 6 | ADV |
| 45 | 39 | HI | 36 | HI | 38 | HI | 8 | ADV |
| 46 | 46 | HI | 44 | HI | 60 | HI | 8 | ADV |
| 47 | 25 | HI | 27 | LO | 19 | LO | 2 | INI |
| 48 | 39 | HI | 30 | HI | 54 | HI | 8 | ADV |
| 49 | 27 | HI | 26 | LO | 47 | HI | 6 | ADV |
| 50 | 20 | LO | 29 | HI | 39 | HI | 7 | ADV |
| 51 | 37 | HI | 34 | HI | 38 | HI | 8 | ADV |
| 52 | 20 | LO | 21 | LO | 10 | LO | 1 | INI |
| 53 | 36 | HI | 30 | HI | 32 | HI | 8 | ADV |
| 54 | 25 | HI | 24 | LO | 24 | LO | 2 | INI |
| 55 | 17 | LO | 23 | LO | 32 | HI | 5 | MOD |
| 56 | 20 | LO | 27 | LO | 19 | LO | 1 | INI |
| 57 | 32 | HI | 37 | HI | 46 | HI | 8 | ADV |
| 58 | 38 | HI | 35 | HI | 38 | HI | 8 | ADV |
| 59 | 34 | HI | 30 | HI | 32 | HI | 8 | ADV |
| 60 | 18 | LO | 20 | LO | 21 | LO | 1 | INI |
| 61 | 21 | LO | 25 | LO | 53 | HI | 5 | MOD |
| 62 | 30 | HI | 29 | HI | 32 | HI | 8 | ADV |
| 63 | 11 | LO | 22 | LO | 23 | LO | 1 | INI |
| 64 | 35 | HI | 36 | HI | 38 | HI | 8 | ADV |
| 65 | 19 | LO | 20 | LO | 30 | LO | 1 | INI |
| 66 | 17 | LO | 28 | LO | 32 | HI | 5 | MOD |
| 67 | 29 | HI | 30 | HI | 31 | LO | 4 | MOD |
| 68 | 31 | HI | 29 | HI | 35 | HI | 8 | ADV |
| 69 | 19 | LO | 27 | LO | 33 | HI | 5 | MOD |
| 70 | 28 | HI | 32 | HI | 46 | HI | 8 | ADV |
| 71 | 20 | LO | 31 | HI | 35 | HI | 7 | ADV |
| 72 | 18 | LO | 23 | LO | 32 | HI | 5 | MOD |
| 73 | 13 | LO | 21 | LO | 23 | LO | 1 | INI |
| 74 | 19 | LO | 29 | HI | 21 | LO | 3 | INI |
| 75 | 18 | LO | 22 | LO | 26 | LO | 1 | INI |
| 76 | 11 | LO | 24 | LO | 25 | LO | 1 | INI |
| 77 | 21 | LO | 35 | HI | 36 | HI | 7 | ADV |
| 78 | 11 | LO | 23 | LO | 23 | LO | 1 | INI |
| 79 | 35 | HI | 33 | HI | 38 | HI | 8 | ADV |

| 80 | 26 | HI | 24 | LO | 40 | HI | 6 | ADV |
|---|---|---|---|---|---|---|---|---|
| 81 | 19 | LO | 24 | LO | 32 | HI | 5 | MOD |
| 82 | 19 | LO | 29 | HI | 35 | HI | 7 | ADV |
| 83 | 22 | HI | 25 | LO | 23 | LO | 2 | INI |
| 84 | 18 | LO | 29 | HI | 21 | LO | 3 | INI |
| 85 | 30 | HI | 31 | HI | 31 | LO | 4 | MOD |
| 86 | 13 | LO | 21 | LO | 22 | LO | 1 | INI |
| 87 | 40 | HI | 40 | HI | 38 | HI | 8 | ADV |
| 88 | 19 | LO | 29 | HI | 24 | LO | 3 | INI |
| 89 | 30 | HI | 31 | HI | 31 | LO | 4 | MOD |
| 90 | 14 | LO | 26 | LO | 26 | LO | 1 | INI |
| 91 | 14 | LO | 26 | LO | 24 | LO | 1 | INI |
| 92 | 28 | HI | 29 | HI | 31 | LO | 4 | MOD |
| 93 | 26 | HI | 22 | LO | 47 | HI | 6 | ADV |
| 94 | 26 | HI | 20 | LO | 24 | LO | 2 | INI |
| 95 | 21 | LO | 24 | LO | 52 | HI | 5 | MOD |
| 96 | 18 | LO | 29 | HI | 20 | LO | 3 | INI |
| 97 | 35 | HI | 37 | HI | 45 | HI | 8 | ADV |
| 98 | 21 | LO | 25 | LO | 32 | HI | 5 | MOD |
| 99 | 17 | LO | 24 | LO | 26 | LO | 1 | INI |
| 100 | 10 | LO | 22 | LO | 22 | LO | 1 | INI |
| 101 | 22 | HI | 26 | LO | 22 | LO | 2 | INI |
| 102 | 21 | LO | 29 | HI | 36 | HI | 7 | ADV |
| 103 | 25 | HI | 31 | HI | 29 | LO | 4 | MOD |
| 104 | 20 | LO | 29 | HI | 21 | LO | 3 | INI |
| 105 | 27 | HI | 27 | LO | 41 | HI | 6 | ADV |
| 106 | 32 | HI | 32 | HI | 31 | LO | 4 | MOD |
| 107 | 28 | HI | 19 | LO | 25 | LO | 2 | INI |
| 108 | 20 | LO | 19 | LO | 10 | LO | 1 | INI |
| 109 | 10 | LO | 21 | LO | 23 | LO | 1 | INI |
| 110 | 21 | LO | 30 | HI | 35 | HI | 7 | ADV |
| 111 | 24 | HI | 20 | LO | 23 | LO | 2 | INI |
| 112 | 20 | LO | 27 | LO | 32 | HI | 5 | MOD |
| 113 | 25 | HI | 29 | HI | 28 | LO | 4 | MOD |
| 114 | 20 | LO | 30 | HI | 22 | LO | 3 | INI |
| 115 | 14 | LO | 26 | LO | 33 | HI | 5 | MOD |
| 116 | 10 | LO | 19 | LO | 23 | LO | 1 | INI |
| 117 | 34 | HI | 29 | HI | 37 | HI | 8 | ADV |
| 118 | 26 | HI | 30 | HI | 31 | LO | 4 | MOD |
| 119 | 21 | LO | 28 | LO | 19 | LO | 1 | INI |
| 120 | 27 | HI | 32 | HI | 29 | LO | 4 | MOD |
| 121 | 37 | HI | 34 | HI | 37 | HI | 8 | ADV |
| 122 | 23 | HI | 30 | HI | 29 | LO | 4 | MOD |
| 123 | 38 | HI | 36 | HI | 38 | HI | 8 | ADV |
| 124 | 14 | LO | 17 | LO | 21 | LO | 1 | INI |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **125** | **21** | **LO** | **13** | **LO** | **27** | **LO** | **1** | **INI** |
| **126** | **46** | **HI** | **44** | **HI** | **53** | **HI** | **8** | **ADV** |
| **127** | **21** | **LO** | **31** | **HI** | **34** | **HI** | **7** | **ADV** |
| **128** | **10** | **LO** | **22** | **LO** | **23** | **LO** | **1** | **INI** |
| **129** | **16** | **LO** | **29** | **HI** | **20** | **LO** | **3** | **INI** |

## APPENDIX III

## BBQ STATEMENTS BY COMPONENTS WITH DIRECTIONAL SIGNS &

## STATEMENT NUMBERS

| Components and signs | BBQ Statements | Statement No. |
|---|---|---|
| DPP- | I routinely compromise the quality of my work | 10 |
| DPP- | I feel alienated and detached from my co-workers | 11 |
| DPP- | I have acted in an unprofessional manner towards others in the workplace | 15 |
| DPP- | I wish I was more tolerant of others in my job. | 18 |
| DPP- | I treat people as object or things to be manipulated in the workplace | 29 |
| DPP+ | I feel comfortable with the way I treat other in the workplace | 5 |
| DPP+ | Working with people is exhilarating for me | 16 |
| DPP+ | I acknowledge contribution of my Co-workers | 27 |
| DPP+ | I enjoy working on a team | 19 |
| DPP+ | I really do care about my co-workers | 22 |
| LPA- | I lack the desire and creativeness to complete many tasks. | 3 |
| LPA- | I have trouble living up to others' expectations | 21 |
| LPA- | At times, the constant change in available information and technologies interferes with my ability to get the job done | 23 |
| LPA- | I am tired of having to solve other people's problems | 20 |
| LPA- | At times, I question my own competence and wonder about my ability to continue to do the job | 30 |
| LPA+ | I try to encourage and support a collaborative work culture | 4 |
| LPA+ | I believe I am helping build a better life for other through the work I do | 9 |
| LPA+ | I can sense when other worker are having difficulties | 13 |
| LPA+ | I empower other to succeed | 14 |

| | | |
|---|---|---|
| LPA+ | Others appreciate the consistent effort i bring to the job | 17 |
| EEE- | At the end of the workday I simply have nothing left to give | 6 |
| EEE- | I am still tired, even after a vacation or break away from work | 7 |
| EEE- | I regularly have emotional outbursts at work | 8 |
| EEE- | I wish I could relax more | 12 |
| EEE- | Work has become a real struggle for me | 24 |
| EEE+ | I handle work pressure better than most | 1 |
| EEE+ | I am living a rich, full life and not just surviving in my work | 2 |
| EEE+ | I really enjoy the prospect of getting up and going to work every day | 26 |
| EEE+ | I maintain a consistently high energy throughout the workday | 28 |
| EEE+ | I feel refreshed and alert | 25 |

**APPENDIX IV**

**SPECIALITY CLASSIFICATION**

| Speciality | |
|---|---|
| **MEDICAL SPECIALISTS** | **GENERALPRACTICE – GP** |
| **Clinical Specialists** | General Practice |
| Anaesthesia | **SURGICAL SPECIALISTS** |
| Community Medicine | Cardiovascular /Thoracic Surgery |
| Dermatology | General Surgery |
| Diagnostic Radiation | Neurosurgery |
| Emergency Medicine | Obstetrics / Gynaecology |
| Internal Medicine | Ophthalmology |
| General Internal Medicine | Otolaryngology |
| Cardiology | Orthopaedic Surgery |
| Clinical Immunology / Allergy | Plastic Surgery |
| Endocrinology / Metabolism | Urology |
| Gastroenterology | |
| Geriatric Medicine | |
| Haematology | |
| Infectious Diseases | |
| Medical Oncology | |
| Respiratory Medicine | |
| Rheumatology | |
| Medical Genetics | |
| Neurology | |
| **Medical Specialties** | |
| Occupational Medicine | |
| Paediatrics | |
| Physical Medicine / Rehabilitation | |
| Psychiatry | |
| Radiation Oncology | |