Summer Internship Report

At

Rajiv Gandhi Cancer Institute & Research Centre

(12th May To 11th July 2025)

A Report On

Assessment Of Work-Related Fatigue, Mental Load & Break Utilisation Among Oncology Nursing Staff

By

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(PG/24/084)

Post-Graduate Diploma in Hospital & Health Management

(2024-2026)

IIHMR DELHI

International Institute of Health Management Research, New Delhi

Acknowledgement

I would like to express my deepest gratitude to those who have provided unwavering support and guidance throughout the completion of this report.

First and foremost, I would like to extend my sincere appreciation to my institution mentor **Dr. Divya Aggarwal,** for their invaluable insights, patience, and encouragement. Their expert guidance and constructive feedback have been instrumental in shaping this work. I am deeply grateful for the time they invested in reviewing drafts, providing suggestions, and sharing their knowledge and experience with me.

I would like to express my sincere gratitude to **Mr. J.P. Dwivedi** (Chief Information Officer) and **Dr. Archana Atreja** (Medical Superintendent), my mentor **Mr. Virendra Sharma** (Manager-I.T.) and **Mr. Divyanshu Gupta** in Rajiv Gandhi Cancer Institute & Research Institute, Rohini, New Delhi, for their continuous guidance who despite being busy with their duties, took time to hear me and guide me and gave helpful advice and constructive comments throughout the project. Their valuable inputs made this project possible.

Finally, I am immensely grateful to my family for their constant support and encouragement. Their understanding and patience during the times when my work demanded long hours and undivided attention have been incredibly supportive.

This report is a testament to the collaborative efforts and contributions of all those mentioned, and it is with great appreciation that I acknowledge their significant roles in making this possible.

RGCIRC
Ethics, Empathy & Excellence

HR/2025

11th July 2025

WHOMSOEVER IT MAY CONCERN

Rajiv Gandhi Cancer Institute and Research Centre is today counted amongst Asia's premier exclusive cancer centers that offer unique advantage of cutting-edge technology, put to use by renowned super specialists. This potent combination of man and machine ensures world-class cancer care to not only patients from India, but also from neighboring SAARC countries and others. We are fortunate to have touched lives of more than 3.5 lakh patients since inception in 1996.

The Institute offers super specialized tertiary care services in Medical, Surgical and Radiation Oncology, streamlined into dedicated Site-specific teams. Super Specialists at RGCIRC practice an organ specific multi-disciplinary approach to cancer diagnosis and treatment, with the Tumor Board acting as second opinion clinic for cases that are more critical than others.

RGCIRC has been consistently ranked amongst India's Best Oncology Hospitals, and has been the recipient of many awards, including National Business Leadership & Service Excellence Award 2017 for Best Oncology Hospital in India, Indywood Medical Excellence Award 2017, Most Trusted Hospital in Oncology 2017 by India Today (Reader's Digest), India's Most Trusted Hospital for Oncology (Reader's Digest Most Trusted Brands 2016) and Runner up in Finest India Skills & Talent Award 2020 organized by Fire & Security Association of India, Ranked no. 1 (Best Oncology Hospital) in Delhi 2023 by Outlook, Best Specialized Hospital in Asia Pacific region specializing in oncology 2023 by an American Leading Magazine News Week and World's Best Specialized Hospital 2024 specializing in oncology by News Week.

This is to certify that **Dr. Rabia Tabassum** has completed her internship in this Institute in the Department of **Information Technology** from **12th May 2025 to 11th July 2025.**

During this period her conduct and behavior was found to be commendable.

We wish her all the best for her future endeavors.

Bishwajit Das
Chief People Officer

J.P. Dwivedi
Chief Information Officer

(Completion of Summer Internship from respective organization)

The certificate is awarded to

Name Dr. Rabia Tabassum

In recognition of having successfully completed his/her Internship in the department of

Title Information Technology

and has successfully completed her Project on

Title of the Project

~~Date~~ Assessment of Work related fatigue, Mental load & Break utilisation among oncology nursing staff

Organisation Rajiv Gandhi Cancer Institute & Research Centre

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

We wish him/her all the best for future endeavors

12/07/25

Organization Supervisor

Head-HR/Department Head

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: Dr. Rabia Tabassum

Summer Internship Institution: RGCIRC, Rohini

Area of Summer Internship: Information Technology

Attendance: Satisfactory

Objectives met: Yes

Deliverables: Assessment of work related fatigue, mental load & Break utilisation among oncology nursing staff

Strengths: Hardworking, Always ready to take challenges.

Suggestions for Improvement: Need to be calm while doing task

12/07/25

Signature of the Officer-in-Charge (Internship)

Date: 12th July 2025
Place: Rohini, New Delhi

Certificate of Approval

The Summer Internship Project of titled **"Assessment of Work-Related Fatigue, Mental Load & Break Utilisation Among Oncology Nursing Staff"** at **Rajiv Gandhi Cancer Institute & Research Centre, Delhi** 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 report only for the purpose it is submitted.

Dr. Divya Aggarwal
Associate Dean- Training & Capacity Building
Associate Professor
IIHMR, Delhi

FEEDBACK FORM

(IIHMR MENTOR)

Name of the Student: Rabia Tabassum

Summer Internship Institution: Rajiv Gandhi Cancer Institute, Delhi

Area of Summer Internship: Hospital IT

Attendance: Satisfactory

Objectives met: Yes

Deliverables: Project Report on Assessment of Work related fatigue, mental load & break utilisation among oncology nursing staff.

Strengths: Hardworking & Detail-oriented.

Suggestions for Improvement:

Signature of the Officer-in-Charge **(Internship)**

Date: 4th July '25
Place: DELHI

Rabia (84) Summer internship report

ORIGINALITY REPORT

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Section-A

Organisation's Outline

Introduction

The Rajiv Gandhi Cancer Institute & Research Centre is a stand-alone cancer care facility in Delhi that was established in 1996 by the "not for profit organization" Indraprastha Cancer Society and Research Centre, which was established under the societies registration act 1860. Despite having no financial means, the society's founders—a group of altruistic, socially conscious philanthropists—were able to raise money for the hospital's first operations via perseverance and hard effort. The primary driving forces behind the establishment of the hospital were quality, price, and ease of access for cancer patients.

RGCIRC is a prime example of a "not for profit organization" that supports government initiatives in the healthcare sector.

A clear advantage is provided by the utilization of cutting-edge technologies by reputable super specialists at RGCIRC, one of Asia's premier exclusive cancer facilities. This potent combination of human and machine provide excellent cancer care to patients from India, the SAARC bordering countries, and other countries. With its establishment in 1996, RGCIRC has helped over 3.5 lakh patients.

The institute's site-specific teams offer highly specialized tertiary care services in radiation oncology, surgery, and medicine. For patients who are more critical, the tumour board acts as a second opinion clinic, and the super specialists at RGCIRC employ an organ-specific interdisciplinary approach to cancer diagnosis and treatment.

RGCIRC employ cutting-edge technology that aids in precisely identifying the particular malignancy of each patient and in treatment planning for the best outcomes. The first hospital in India to install a real beam for precision radiation, the first to start robotic surgery for cancer patients, and the first to establish a molecular laboratory.

With a present capacity of over 500 beds and a space of around two lakh square feet, RGCIRC is one of the largest tertiary care facilities on the continent. It also has another facility in Niti Bagh South Delhi. Fourteen contemporary, fully equipped modular operating rooms with three-stage gas scavenging and air filtering systems are available at RGCIRC, along with three smaller operating rooms for daycare procedures.

The institute features a distinct thyroid ward, a specialized leukaemia ward, a surgical intensive care unit with 51 beds, a medical intensive care unit with 21 beds, and a separate bone marrow transplant unit with 22 beds that is recognized for being the first to do stem

cell, mud, and unrelated donor transplants. Supportive services include endoscopic ultrasound and different endoscopies, as well as renal replacement therapy.

RGCIRC is dedicated to providing its patients with the advantages of state-of-the-art technology. Whole-body robotic surgery, cyber knife, Tomo therapy, intra-operative brachytherapy, PET-MRI fusion, high-intensity focused ultrasound (HIFU), tomosynthesis (a first-of-its-kind revolutionary 3d mammography machine), nucleic acid testing (for the safest possible blood), and advanced diagnostic and imaging techniques like digital PET CT, circulating tumour cell testing, liquid biopsy, and next generation sequencing are among the best-in-class procedures offered by the institute.

A dedicated catheter lab for cancer patients has been started to perform all interventional radiology procedures, including portal venous embolization, carotid artery embolization and others.

The institute has also established a molecular laboratory for gene profiling and a biorepository (tissue bank) for clinical and research purposes.



Vision

To provide affordable oncological care of international standard and help to eliminate cancer from India through research, education, prevention & patient care.



Mission

To be the premier cancer care provider in India and be the preferred choice of patients, care givers, faculty and students

- By offering comprehensive services at an affordable price
- And excellence of our personnel leveraging best technology



Values

- We hold our patients in high esteem and work with ethics and compassion
- We care and function with mutual respect, trust and transparency
- We deliver accurate diagnosis, correct advice and effective treatment.

Accreditation

- NABH accreditation for hospital
- NABH accreditation for blood bank
- NABH accreditation for ethics committee
- NABL accreditation for laboratory services
- NABH certification for nursing excellence
- Green OT certification from bureau veritas

Awards

- Greentech environmental award in 1999
- Golden peacock award for environmental excellence in 2000
- Healthcare radius award for outstanding contribution to Indian healthcare industry in 2014
- Best cancer hospital in India by times of India and new India insurance at healthcare achievers awards in 2014
- India’s best oncology hospital by the week Nielsen survey in 2014
- India’s best oncology hospital by the week Nielsen survey in 2015
- India’s best oncology hospital by the week Nielsen survey in 2016

- India’s most trusted hospital in oncology by India today (readers’ digest most trusted brands) in 2016
- Best oncology hospital in India at national business leadership & service excellence awards in 2017
- Indywood medical excellence award “national chapter” by indywood film carnival & govt. of Telangana in 2017
- India’s most trusted hospital in oncology by India today (reader’s digest most trusted brands) in 2017
- India’s most trusted hospital in oncology by India today (reader’s digest most trusted brands) in 2018
- Best hospital in oncology care at business excellence award for pharma & healthcare in 2018
- Finest India skills & talent award (runner up) by fire & security association of India in 2020
- Best specialized hospitals in Asia pacific 2023 by Newsweek international in 2023
- World’s best specialized hospitals 2024 by Newsweek international in 2024
- Best specialized hospitals in Asia pacific 2024 by Newsweek international in 2024
- World’s best specialized hospitals 2025 by Newsweek international in 2025
- Outstanding oncology treatment centre by Jagran new media at 5th edition of healthcare heroes awards in 2025
- Single specialty hospital of the year by medgate today magazine at 15th MT India healthcare awards in 2025

Academics

The institute is running the following academic programs

- Fellowship programs recognized by Indian Medical Association- Academy of Medical Specialties, Hyderabad
- Fellowship Program Oncology Radiology
- Dnb Programs accredited by National Board of Examinations, Delhi
- B.Sc. Programs in medical technology – radio therapy recognized by Guru Gobind Singh Indraprastha University, Delhi
- Diploma programs recognized Indian Medical Association, Delhi
- Oncology nursing course (autonomous)

- PICC line training program

➢ Services that the hospital provides:

- Services
  i) International Standards
  ii) Emergency Department
  iii) Bed Availability- 500+

- Additional services:
  1. Physiotherapy
  2. Palliative care
  3. Day care
  4. Paediatric care
  5. Telemedicine
  6. Pharmacy
  7. Counselling
  8. Preventive care

➢ Treatment of Cancer

- Blood Cancer Treatment
- Bone Cancer Treatment
- Bone Marrow Transplant
- Breast Cancer Treatment
- Cervical Cancer Treatment
- Head & Neck Cancer Treatment
- Liver Cancer Treatment
- Pancreatic Cancer Treatment
- Paediatric Cancer Treatment
- Prostate Cancer Treatment
- Mouth Cancer Treatment
- Throat Cancer Treatment

EMERGENCY CODES

CODES	SITUATION
BLUE	INDIVIDUAL DISASTER
RED	FIRE EMERGENCY
PINK	MISSING PERSON
YELLOW	EXTERNAL DISASTER
PURPLE	DANGEROUS PERSON
BLACK	BOMB THREAT

Strategies

"RGCI&RC has executed strategic alliances with internationally renowned institutes Such as Thomas Jefferson university; this has catapulted RGCI & RC into global League of select hospitals that are pioneers in a new approach to treating cancer".

Conclusion

RGCI & RC is a one-of-a-kind cancer care institution in Northern India, capable of Diagnosing and treating all types of cancers. The hospital's distinguishing feature is its Highly qualified doctors and employees, as well as an experienced management team. Its research programme contributes to the continuous enhancement of therapy and care For patients of all types. Their management / administration team eases out every situation issue faced by the patient effectively. Ambience of the hospital, services provided to the patient is excellent.

Hospital management

Chairman: Mr. Rakesh Chopra

Vice Chairman: Mr. Ashok Kumar Agarwal

Hony. Secretary: Mr. Pramod Maheshwari

Treasurer: Mr. Amresh Sood

Chief Executive Officer: Mr. D. S. Negi

Medical Director: Dr. Sudhir Rawal

Medical Superintendent: Dr. Archana Atreja

Additional Medical Superintendent: Dr. Satya Brat Sahay Srivastava

Chief Finance & Strategy Officer: Mr. Rajesh Thacker

Chief Information Officer: Mr. J. P. Dwivedi

Chief People Officer: Mr. Bishwajit Das

Chief Supply Chain Officer: Mr. Debasis Routray

Chief Of Engineering: Mr. Ashwani Kaushal

Director Nursing: Mrs. Madhumita Dhall

DGM – MRD: Mr. K. S. Rana

Legal Consultant: Mrs. Mansi Bajaj

Chief Medical Physicist & Radiation Safety Officer (RSO): Mr. Manindra Bhushan

Chief Radiotherapy Technologist: Mr. Gurvinder Singh Wadhawan

Chief Of Pharmacy: Mr. Manoj Sankar Prabhu

Head-Safety & Security: Mr. Jaideep Singh

Head Internal Audit: Ms Srishti Bali

Head Of Philanthropic Services: Ms Swarnima Jaitley

General Working of Department

Reception: centrally located **May I Help You Desk** near main reception is there to guide patients to their respective OPD/ IPD / support service areas.

Registration: every new patient who comes to the hospital for the first time is registered at the registration counter in the main reception area. In order to record the patient's treatment journey, a care recipient number (CR.no) is created along with a medical records file that is utilized for all upcoming OPD and IPD visits. In addition to their pan card or Aadhar card, the patient must present a copy of their photo id and proof of address in order to register. A photocopy of the patient's passport, including the first, last, and visa pages, is required for foreign patients.

Admission Centre: before making an appointment with your doctor, get basic information, answer your questions, and provide important details concerning your hospital stay.

Cash Counter: all of the hospital's credit and cash bills are centralized, with the cash counter module handling control and settlement. By successfully establishing checks and balances to regulate all cash activities related to receipts and payments, it improves financial discipline and eliminates the chance of hospital finance manipulation.

Out-Patient Departments (OPDs): every OPD has a waiting area and enough space. There are televisions and token display panels in the waiting areas. There are restrooms for male and female patients and attendants, drinking water facilities, and restrooms for patients with disabilities on every OPD floor.

In-patient reception (IPD): following a visit with a doctor, the patient or their representative is required to complete an admission form at this reception per the doctor's instructions.

Two methods of admission are possible:

Through the "Emergency Department" and OPD administration, the hospital staff's capacity to efficiently and professionally administer and organize the hospital will be improved.

Human Resource Department: HR managers are in charge of the organization's employee administrative matters. Set up training courses for employees.

Finance Department is responsible for overseeing and managing the hospital's finances and creating annual budgets.

Quality Department makes sure that patients receive the best care possible and that programs and services are carried out to the highest standards. Quality managers are in charge of keeping an eye on and revising policies and procedures to reflect changes in the law.

Information and Technology: to give you the best, most sophisticated care possible, the most up-to-date and pertinent information technology is used.

Medical Record Department: are records of a single patient's treatment and medical history across time under the supervision of a single healthcare professional.

CSSD Department: Operates around the clock, every day of the year. All cleaning, disinfection, and sterilization procedures are carried out in-house in an absolutely aseptic environment.

There are **sample collection rooms** for lab investigations in every OPD section. These have pneumatic tube chute attachments for prompt sample delivery in the laboratory. Procedure, ostomy care room, and dressing rooms/PICC line dressing rooms. There are rooms in every OPD area that is relevant.

F&B/ Staff canteen: this area serves hospital meals and beverages. In addition to preparing patient meals in accordance with dietitian recommendations, the hospital kitchen continuously determines the materials needed for the cafeteria, fast food restaurant, kitchen, etc. It efficiently monitors the necessary inventory, including silverware and utensils.

infection rates, operating costs, physician satisfaction, and patient satisfaction are all significantly impacted by linen/laundry management.

CT scan: every examination is customized to meet the individual needs of the patient, and staff members work to minimize radiation exposure.

X-ray: the radiology department offers in-patients, out-patients, day care centres, and emergency patients top-notch diagnostic services using x-rays and ultrasound scans. The images produced by these radiological services can aid in patient diagnosis.

Catheterization Laboratory: also referred to as a "Cath lab," is a space in a hospital or clinic that is furnished with diagnostic imaging equipment to view the heart's chambers and arteries and treat any stenosis or anomalies found.

Emergency Department (ED): sometimes referred to as an accident and emergency department (A&E), emergency room (ER), or casualty department, is a medical treatment facility that focuses on emergency medicine or the acute care of patients who arrive without an appointment, either on their own or via ambulance.

Operational Theatres: also referred to as operating rooms (ORs) or operating suites, are sterile medical facilities used for performing surgeries.

Intensive Care Unit: patients brought to the intensive care unit (ICU) need round-the-clock observation. Patients may have suffered severe and perhaps fatal injuries in an accident or be severely ill due to an acute illness.

Pharmacy: they carry a wider range of pharmaceuticals than community pharmacies, including more specialized and exploratory drugs (drugs that are being studied but not yet approved). It isn't a retail establishment and often only gives out medications to patients in hospitals.

General ward: patients are moved from the critical care unit to a regular ward when medical personnel decide they no longer need such close observation and individualized care. This is a crucial point in many people's journeys from serious illness to recuperation.

Ward (Semi Private): privacy is created with a simple curtain that somehow possesses the power of seclusion. However, in actuality, this room serves as the temporary residence for two patients—you and a stranger, age 14, who is also recovering, along with their medical staff and any companions they may have brought.

Dietician: a dietician is a specialist in dietetics, which is the study of human nutrition and diet control. A dietician modifies a patient's diet according to their particular needs and medical condition. The only licensed healthcare professionals are dieticians, professionals with the ability to assess, identify, and manage nutritional problems.

Physiotherapy: instead of using drugs or surgery to treat illness, injury, or deformity, physical therapies like massage, heat treatment, and exercise are employed.

Biomedical Engineering: the engineering division performs a variety of tasks that can be delegated to other divisions. It is in charge of running all machinery and equipment, especially maintenance. Mechanical, electrical, and preventive maintenance as well as building operations maintenance.

Infection Control and Prevention: infection control is a practical, as opposed to an academic, area of epidemiology that focuses on preventing nosocomial or illnesses linked to healthcare. The health care system's most important component that's often neglected and little financed.

Section-B

Project Report On

Assessment Of Work-Related Fatigue, Mental Load

& Break Utilisation Among Oncology Nursing Staff

Introduction

Nursing, particularly in oncology care, is globally recognized as one of the most demanding healthcare professions due to the physical workload and emotional labor involved. Oncology nurses face intense clinical responsibilities, frequent exposure to terminally ill patients, and need to manage complex emotional situations. These factors significantly contribute to work-related fatigue, mental exhaustion, and burnout among nursing professionals (1,2).

Fatigue in healthcare is not merely a feeling of tiredness, it is a multidimensional issue linked to reduced concentration, slower cognitive processing, increased risk of clinical errors (3). Long working hours, inadequate staffing, and skipped breaks further exacerbate this fatigue, especially in high-intensity environments like oncology wards (4).

In parallel, the mental load experienced by nurses, encompassing cognitive overload, continuous decision-making, and emotional stress which adds to the risk of burnout. Research has shown that nurses working in critical care settings experience high levels of stress due to workload intensity and lack of recovery time between shifts (5). When unaddressed, this can lead to emotional exhaustion, sleep disturbances, and lower job satisfaction.

While institutional policies often provide for scheduled breaks, studies indicate that these breaks are frequently missed due to patient emergencies, staffing shortages, or the perception that stepping away from duties is not acceptable (6). Over time, the absence of adequate rest during shifts contributes to both physical and psychological strain.

To measure these phenomena accurately, validated tools like the Copenhagen Burnout Inventory (CBI) and the Mini-Z Burnout Survey are widely used in healthcare research. These instruments help assess different dimensions of burnout and work stress in clinical settings (7,8).

Although the impact of nurse fatigue and burnout has been studied in various global settings, there remains limited research specifically focusing on oncology nurses in India, particularly regarding their break-taking behavior and mental load. This study aims to address this gap by assessing the levels of work-related fatigue, mental load, and break utilization among oncology nurses at a tertiary cancer center. The findings are expected to inform recommendations for improving work conditions, scheduling practices, and staff well-being.

AIM of the study:

This study aims to evaluate the levels of work-related fatigue, mental load and utilization of scheduled breaks among oncology nursing staff

OBJECTIVES:

- To measure the prevalence of burnout among nurses.
- To identify common barriers that prevent nurses from taking scheduled breaks.
- To identify interventions in scheduling, staffing, or wellness programs based on findings.

RESEARCH QUESTION:

What is the level of work-related fatigue and mental load among oncology nursing staff, and how is it associated with their utilization of scheduled breaks.

RATIONALE:

Oncology nurses work in highly demanding environments often managing complex patient care, emotional strain and long or irregular shifts. These challenges expose them to significant levels of work-related fatigue, mental overload, burnout which can negatively affect their well-being, job satisfaction, and quality of patient care.

Although scheduled breaks are essential for recovery and performance, nurses often skip them due to high patient loads, staff shortages or workplace culture that discourages taking rest. While global studies have examined nurse fatigue and burnout, there is limited research in the Indian oncology hospital context particularly focusing on break utilization as contributing factors.

This study aims to fill that gap by assessing the levels of fatigue, mental load, and actual break usage among oncology nurses at a tertiary cancer care center, hence generating insights for evidence-based staffing, wellness, and policy improvement.

Review of Literature

Authors (Years)	Title	Study Design	Population	Sample Size	Setting	Country	Key Findings
Sagherian et al. (2021)	Did rest breaks help with acute fatigue among nursing staff on 12-h shifts during the COVID-19 pandemic?	Cross-sectional survey	Hospital nursing staff	338	Inpatient units (COVID-related)	USA	Nurses who took more rest breaks reported significantly lower levels of acute fatigue, supporting the importance of break scheduling.
Cho & Steege (2021)	Nurse fatigue and nurse, patient safety, and organizational outcomes	Systematic review	Nurses across various clinical settings	34 studies	Multicenter (various)	USA	Fatigue was associated with reduced patient safety, job dissatisfaction, and

	: a systematic review						higher turnover; emphasized systemic change.
Ferri et al. (2016)	Impact of shift work on psychological and physical health of nurses in a general hospital	Comparative cross sectional	General hospital nurses	160	Day and rotating shift nurses	Italy	Nurses on rotating shifts reported significantly higher stress, poor sleep, and psychological symptoms than those on fixed day shifts.
Gómez-Urquiza et al. (2016)	Prevalence, risk factors, and levels of burnout among oncology nurses: a systematic review	Systematic review	Oncology nurses	12 studies	Oncology departments	Global	Burnout was high among oncology nurses, driven by emotional demands, workload, and lack of

							recovery time.
Lakshmikanthcharan et al. (2019)	Stress and burnout among intensive care unit healthcare professionals in an Indian tertiary care hospital	Observational, cross-sectional	ICU nurses and healthcare staff	100	ICU at tertiary hospital	India	High stress and burnout levels observed among ICU nurses; workload and shift schedules were major contributors

Methodology

METHODOLOGY of this study:

Study Design	Descriptive Cross-Sectional Study
Study Setting	Super- Speciality Tertiary Care Cancer Hospital Located In North-West Delhi Area
Study Duration	2 Months (May-June 2024)
Study Population	Registered Nursing Staff Working In Oncology Units Of The Hospital
Sampling Method	Non-Probability Convenience Sampling
Study Tool	Structured Questionnaire

Development of Data Collection Tool:

- The questionnaire consists of 23 structured questions which were developed on the basis of review of relevant literature and existing burnout assessment frameworks.
- It incorporated elements from the Copenhagen Burnout Inventory (CBI) and the Mini-Z Burnout Survey.
- Practical insights and guidance were taken from the Assistant Nursing Superintendent at RGCIRC to ensure relevance to the hospital's specific workflows and challenges.

Questionnaire is divided into 5 major categories:

1. Demographic & Professional Details ⟶ Age, gender, years of experience, shift pattern, and work area
2. Work Pattern & Break Utilization ⟶ Questions on scheduled vs. taken breaks, reasons for missed breaks
3. Fatigue & Mental Load Indicators ⟶ Likert-scale questions on exhaustion, sleep, physical fatigue
4. Burnout Assessment ⟶ Questions on workload pressure, job satisfaction, work-life balance
5. Suggestions & Recommendations ⟶ Open-ended feedback

Data Analysis & Interpretation

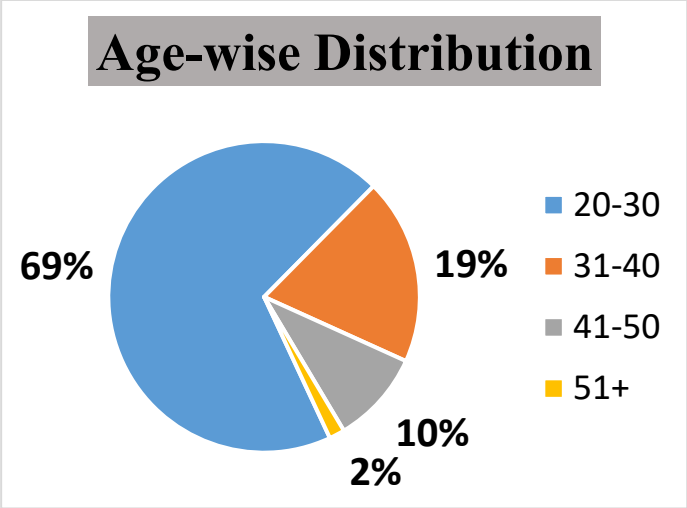
- The data collected through the questionnaire was analyzed using Microsoft Excel.
- Descriptive statistics such as Mean, Median, Mode, Frequency were used to summarize the findings.
- Cross-tabulation was applied to explore associations.

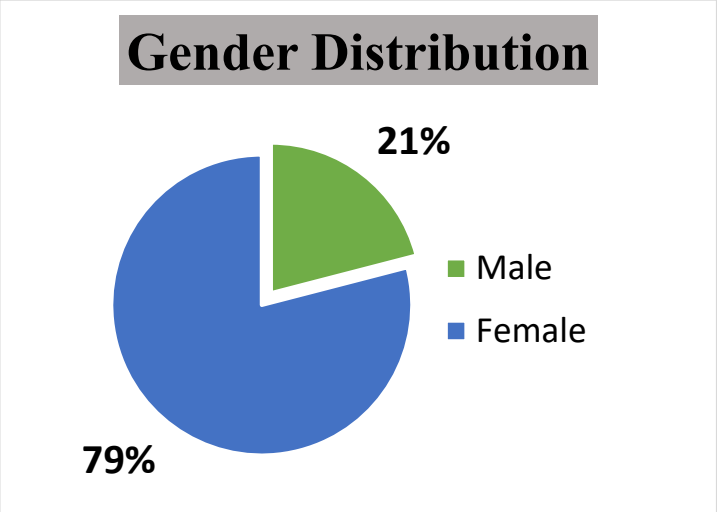
Socio-Demographic Details

Total Respondents: 62 Oncology Nurses

Age Distribution: Ranging from 21-55 years old

Years of Experience: Ranging from 6 months to 20 years

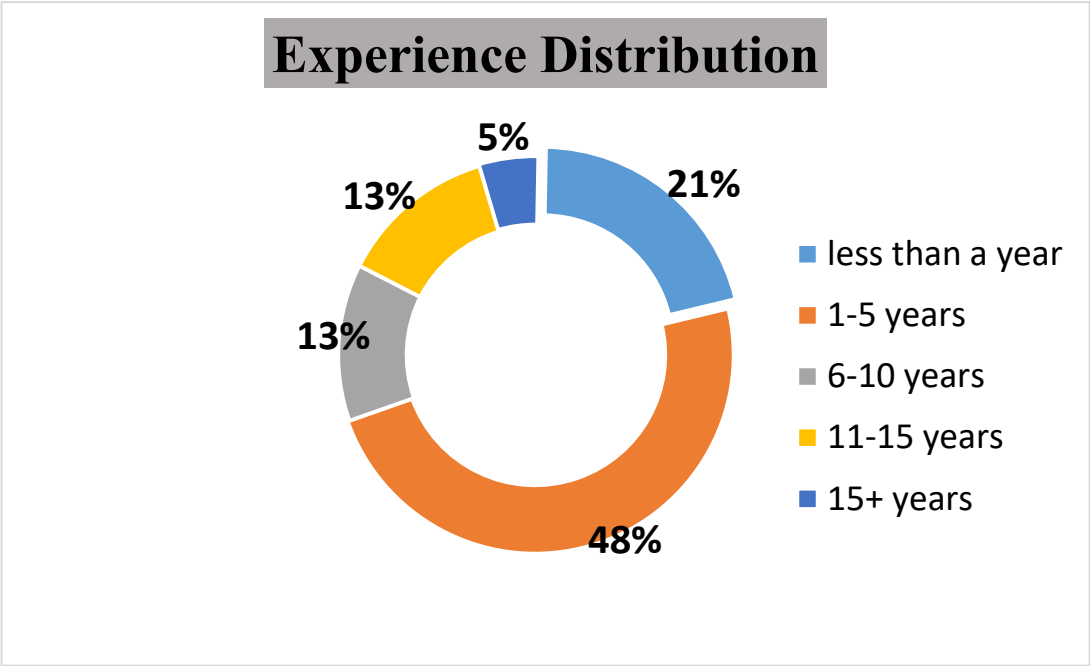




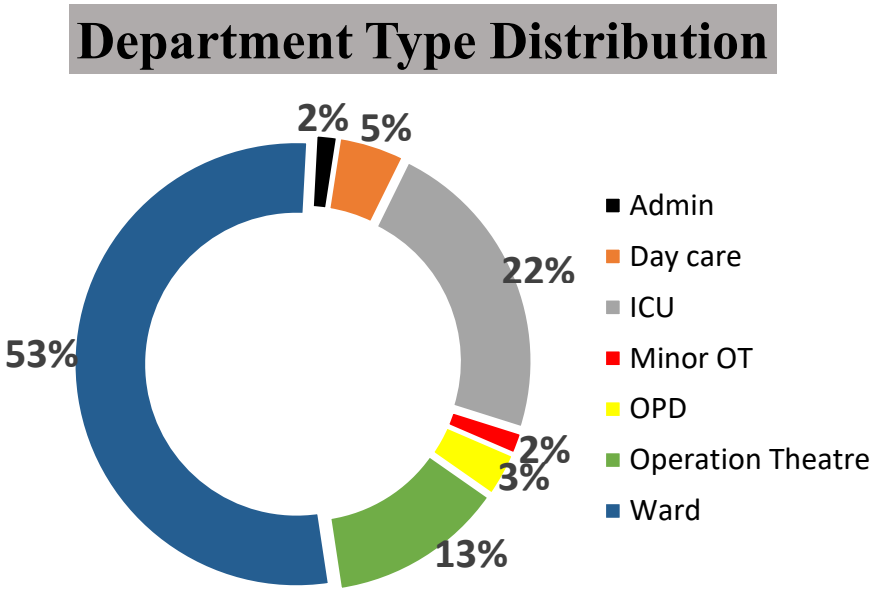
- The pie chart depicts that majority of the nursing population is from the age bracket of 20-30 years, i.e, 69% whereas 19% of the nursing population is of the age group of 31-40years.

- The least population is of the 51+ age group and 10% is of 41-50 years age group, thus representing wide variations among different age groups.

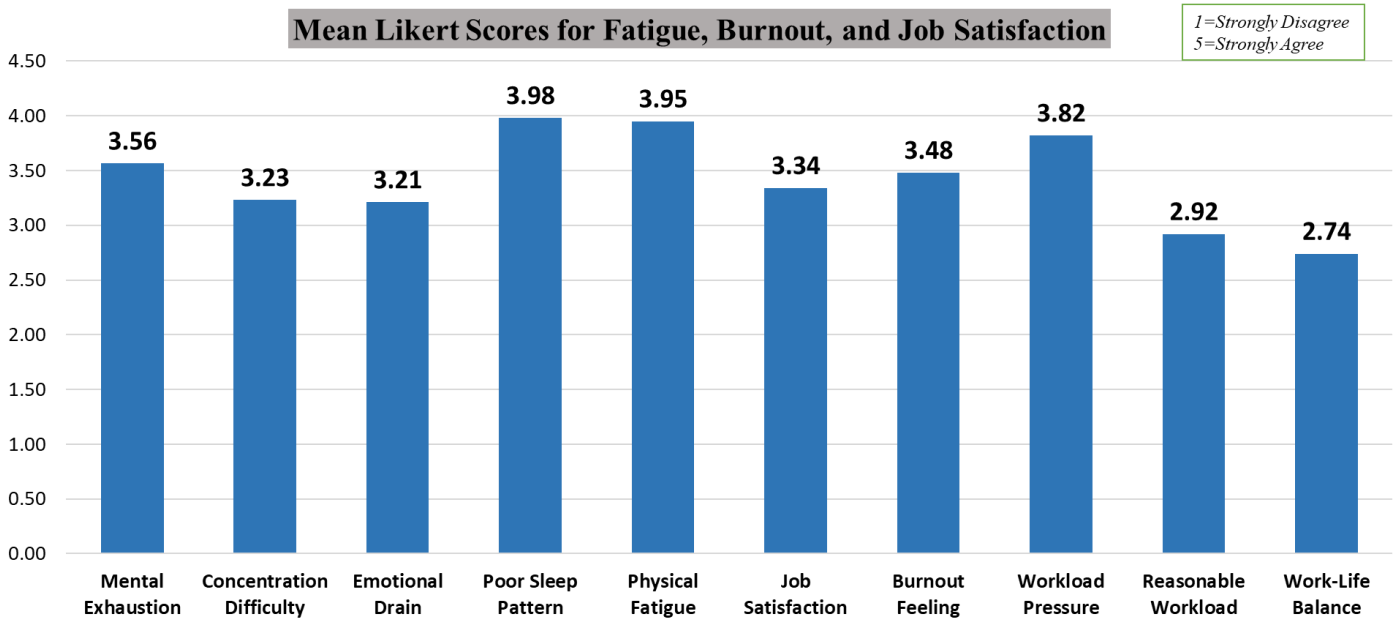
- As far as the gender distribution is considered, female population is predominantly high with 79% of the total population and male comprises of the remaining 21%.



- This is the experience distribution pie chart of the oncology nursing staff where the majority (48%) of the nursing staff has the experience between 1-5 years and the smallest proportion is of 15+ years (5%).



Results



- This chart displays the average Likert scale scores (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) across various dimensions of fatigue, burnout, and job satisfaction among oncology nurses.

Highest Mean Scores:

- Poor Sleep Pattern (3.98) and Physical Fatigue (3.95) received the highest scores, indicating that most nurses agreed or strongly agreed with experiencing physical exhaustion and sleep disturbances.

- Workload Pressure (3.82) and Burnout Feeling (3.48) were also notably high, pointing to considerable psychological strain.

Moderate Scores:

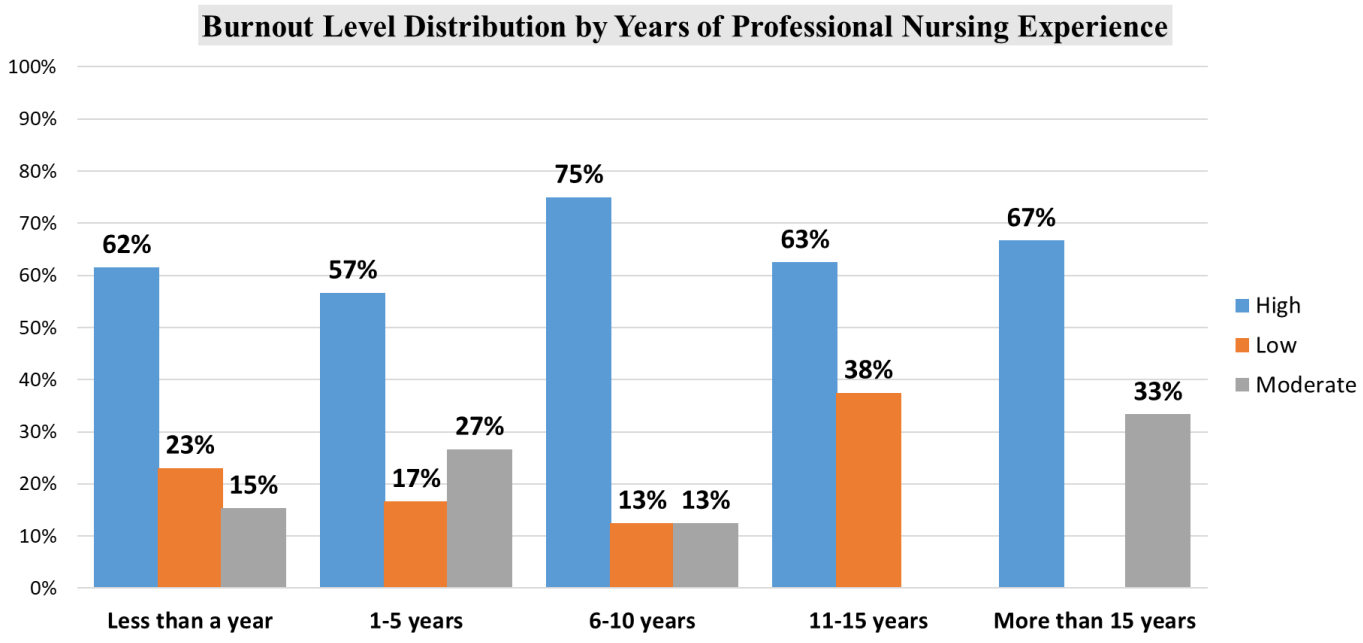
- Mental Exhaustion (3.56) and Job Satisfaction (3.34) show that nurses moderately agree with feeling mentally drained, while still maintaining some level of job satisfaction.

- Concentration Difficulty (3.23) and Emotional Drain (3.21) suggest challenges in mental focus and emotional stability due to work.

Lowest Scores:

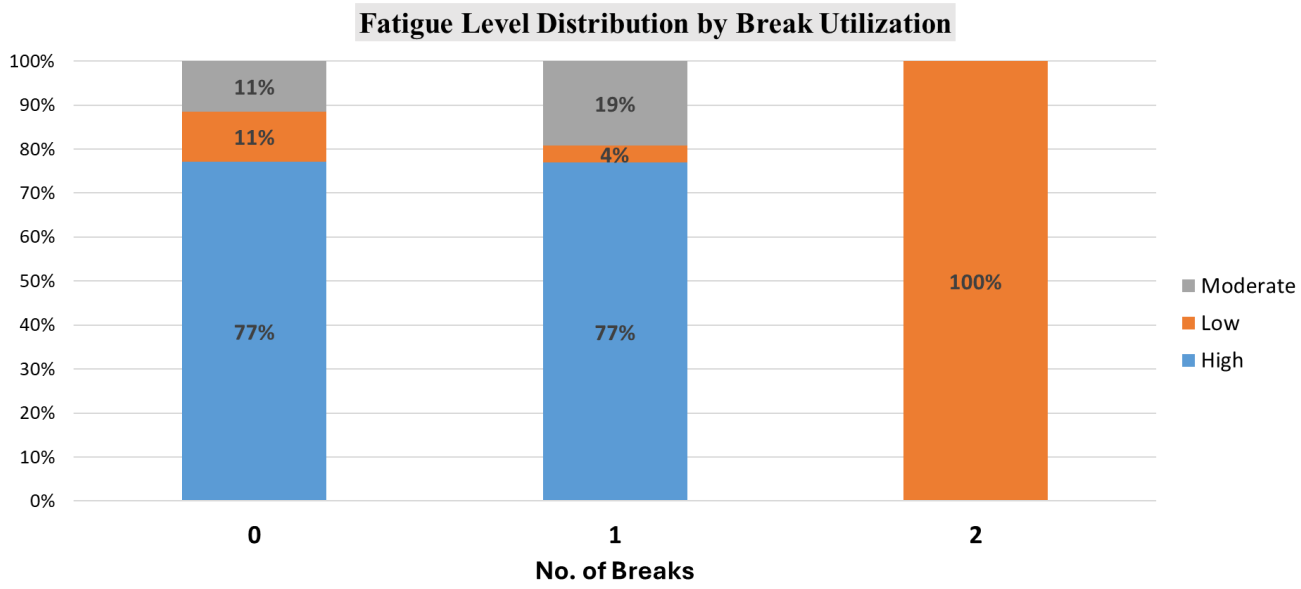
- Reasonable Workload (2.92) and Work-Life Balance (2.74) had the lowest mean scores, implying that nurses disagreed with having a manageable workload or enough personal time, suggesting dissatisfaction in these areas.

- The data reflects a high prevalence of both physical and mental fatigue, along with suboptimal work-life balance.



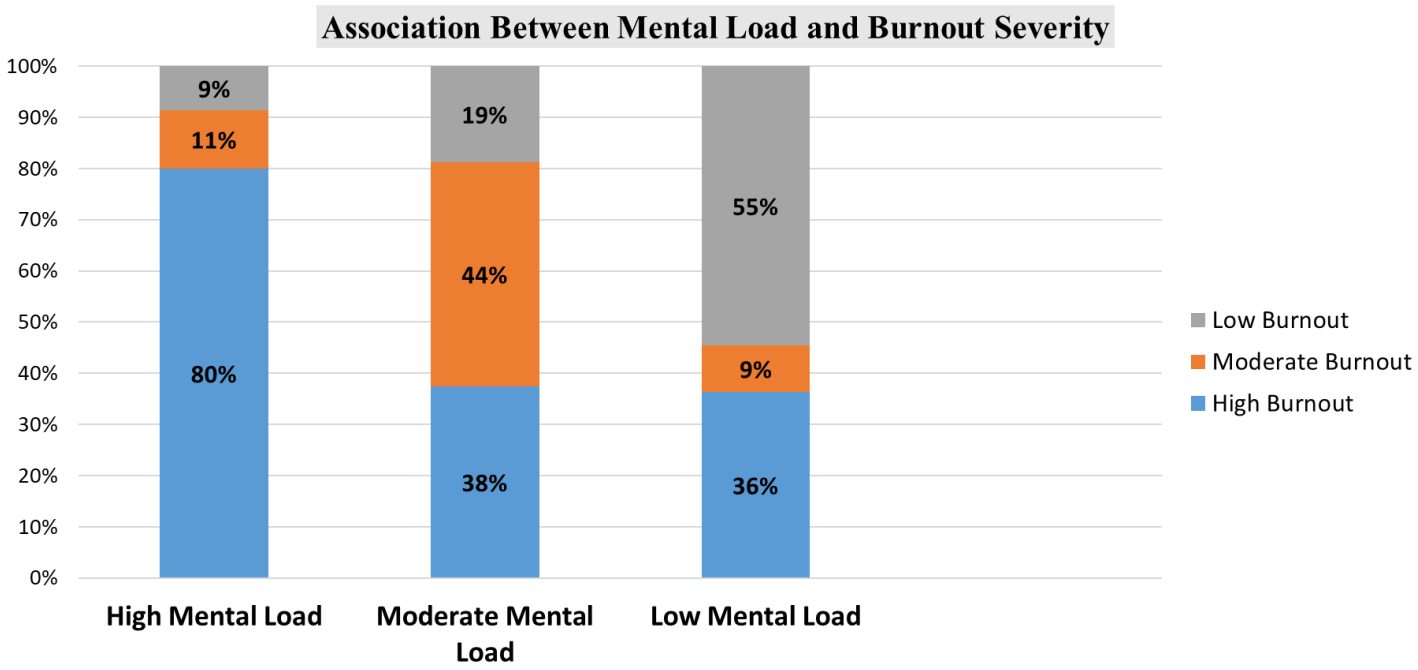
- Burnout levels are high across all experience groups, with the highest burnout (75%) seen among nurses with 6–10 years of experience, indicating mid-career stress as a critical concern. Even early-career (<1 year) and highly experienced (>15 years) nurses show significant burnout.

- These results highlight the urgent need for targeted mental health support and burnout prevention strategies at all career stages.



- The graph shows a significant inverse relationship between the number of breaks taken and the level of fatigue experienced by nurses. Among those who took two breaks, none reported high fatigue, indicating the protective effect of adequate rest. In contrast, 77% of nurses who took zero or one break experienced high fatigue levels which highlights the negative impact of insufficient recovery time during shifts.

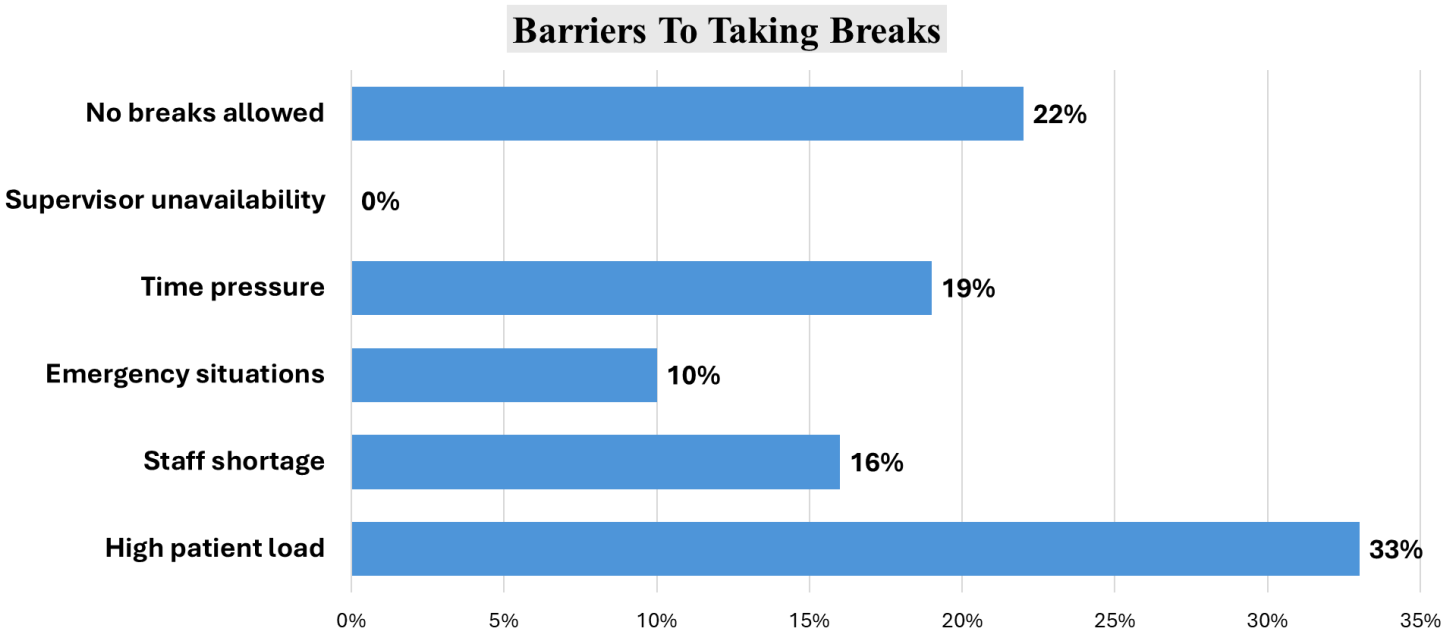
- This suggests that effective break utilization is a key factor in mitigating fatigue, promoting better well-being and sustained performance in oncology nursing settings.



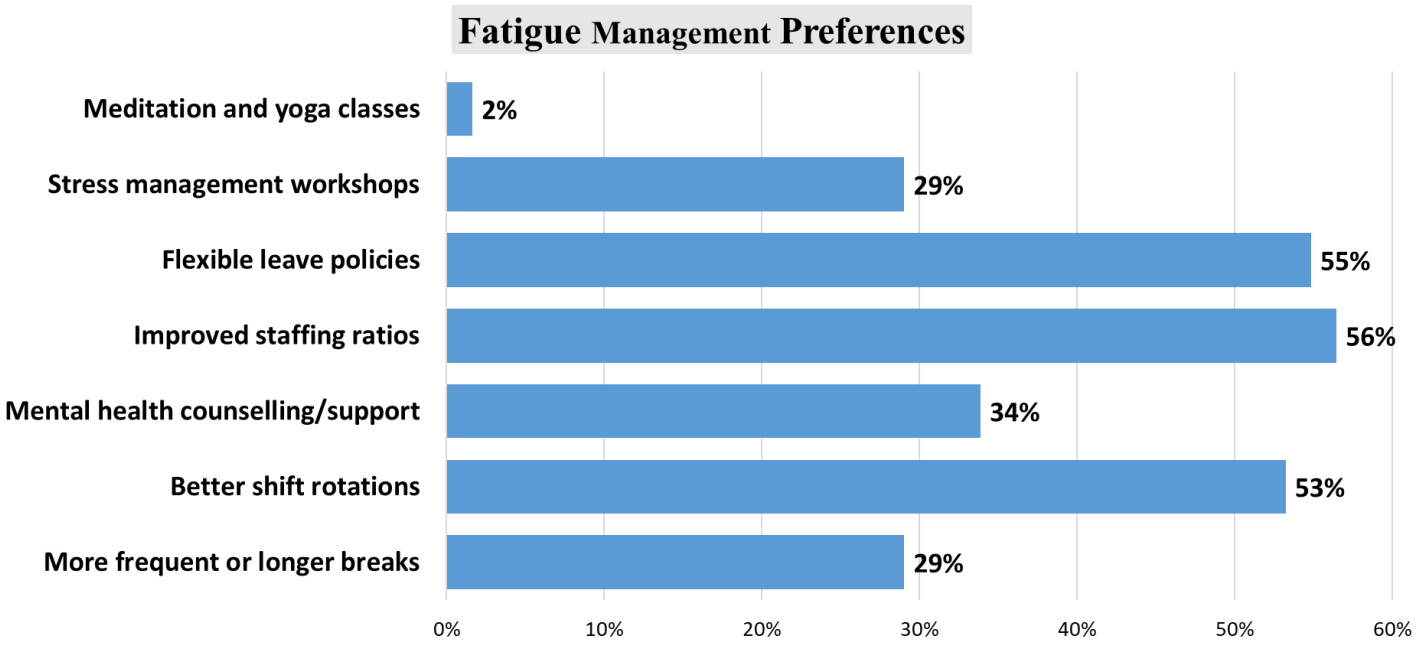
- This graph demonstrates a strong correlation between mental load and burnout severity. Among the nurses reporting low mental load, majority (80%) of them reported low burnout and only a small fraction exhibited moderate or high burnout.
- However, as the mental load increased, the severity of burnout also rose significantly.

- It is also very much evident that in the low mental load group, 55% nurses exhibited low burnout and 36% exhibited high burnout and 9% showed moderate burnout.

- Hence, we can conclude that rising cognitive and emotional demands contribute substantially to increased burnout among oncology nursing staff which highlights the need to address mental load through supportive workplace strategies.



- This chart shows the common reasons why oncology nurses could not take breaks during their shifts. The most reported barrier was high patient load followed by lack of break culture.
- Time constraints, staff shortage and emergency situations were also important reasons.



- This shows what nurses would prefer to manage their fatigue. Majority wanted improved staffing ratios and flexible leave policies and better shift rotations.

- Many also liked to incorporate stress management workshops, mental health support and more frequent breaks so that they get refreshed and do their job more efficiently.

- Overall, the data shows that nurses are looking for practical and supportive changes to help them feel less fatigued at work.

Discussion

The study looked into how work-related fatigue, mental load and break utilisation affect oncology nurses. The results showed that a large number of nurses experienced moderate to high levels of fatigue and burnout. This can negatively impact their well being and performance at work.

An unexpected finding was that some nurses reported not taking breaks even when allowed, pointing toward possible internalized work pressure or lack of a supportive break-taking culture within clinical teams. One of the major findings was that high patient load, staff shortage and time pressure were the common barriers that prevented nurses from taking breaks during their shifts.

It was also seen that nurses who did not take regular breaks were more fatigued and those who experienced higher mental load showed more signs of severe burnout.
This shows how important it is to manage workload and mental pressure in order to maintain mental and physical health of the nurses.

While break policies may exist, implementation remains inconsistent, suggesting a gap between institutional protocols and actual practice. This highlights the importance of not only policy creation but also enforcement and cultural reinforcement.

This study also highlighted that fatigue is more or less equally distributed among all the experience groups, be it young nurses with less experience or older ones with more experience. Despite differences in experience levels, moderate to high levels of fatigue and burnout were consistent across all groups.

The Likert-scale responses revealed high average scores for statements related to mental exhaustion, concentration issues, sleep disruption and physical fatigue, confirming that fatigue is both multidimensional and deeply felt.

When asked about ways to reduce fatigue, most nurses wanted better staffing ratios, scheduled breaks and flexible leave policies and hence indicating that changes in organisational practices could help improve their work experience.

Finally, the study reveals that fatigue is not solely a result of physical workload; emotional and cognitive fatigue indicators were just as prominent, emphasizing the need for holistic fatigue management strategies.

Overall, the study underlines the need for proper staffing, regular breaks utilisation and mental health support in the oncology nursing workforce to improve job satisfaction and patient care quality.

Limitation

- The study included a small sample size which may not represent all units, shifts or demographics within the institution.
- Participants were selected through convenience sampling and voluntary participation, which can lead to selection bias as those who are more affected or motivated may have been more likely to respond.
- Conducted in one tertiary cancer hospital only, thus, limiting the generalizability of the findings to other hospitals or healthcare settings with different work cultures or resource availability.

Conclusion

- This study highlights the significant levels of work-related fatigue, mental load and burnout experienced by oncology nurses at a tertiary care cancer hospital.
- The findings demonstrate a clear link between inadequate break utilization and mental load and increased burnout scores.
- Despite scheduled breaks being part of institutional policy, many nurses were unable to take them due to high patient load, staff shortages and time pressure.
- These factors combined with emotionally intense caregiving, contributed to both physical fatigue and emotional exhaustion.
- Nurses with fewer or no breaks reported higher fatigue and burnout scores.
- Nearly half of the respondents showed signs of moderate burnout, with emotional strain and poor work–life balance being the most reported issues.
- The study emphasizes the need for better break enforcement policies, balanced shift rotations, wellness and mental health support.
- These interventions can enhance nurse well-being, reduce burnout, and enhance both staff retention and patient care quality.

Recommendations

- Establish clear policies that ensure nurses receive scheduled breaks during each shift.
- Assign accountability to unit in-charges or shift supervisors to monitor break compliance.
- Address staff shortages in high-burden departments to reduce individual workload and allow time for rest and recovery.
- Offer regular stress management sessions, mindfulness workshops, and access to counselling.
- Integrate wellness initiatives into HR and make mental health support confidential and accessible.
- Facilitate peer appreciation and recognition activities to reinforce positive emotional experiences at work.
- Conduct usability testing of digital systems to ensure they reduce, not add to, nursing workload.
- Consider integrating voice-to-text or mobile documentation solutions.
- Conduct anonymous surveys every 6–12 months to assess nurse fatigue and burnout.
- Include a feedback loop where staff can suggest improvements or raise concerns.

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