



Development and Implementation of a Digital Application for Monitoring Staff Mental Well-Being in Nuclear Imaging Department

Maryam Furqan^{1*}, Nosheen Fatima^{1,2}, Nimra Panhwar¹, Asma Ismail¹, Niha Imran¹

1. Department of Nuclear Medicine and Thernostics, Dow University of Health Sciences (DUHS), Karachi, Pakistan

2. Aga Khan University Hospital, Karachi, Pakistan

BACKGROUND

Healthcare professionals working in oncology departments face numerous challenges, including high patient volumes, emotionally demanding clinical situations, patient backlogs, radiation safety responsibilities, and overtime shifts. These factors are often overlooked and may contribute to emotional exhaustion, reduced job satisfaction, and burnout.

AIMS

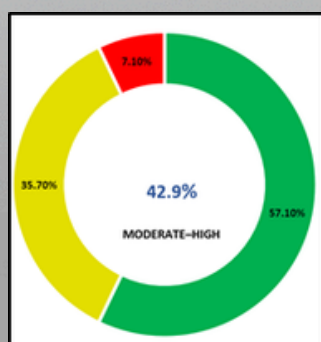
This project aimed to develop and implement a secure web-based application to monitor stress and burnout among healthcare professionals and evaluate its feasibility in supporting staff well-being.

RESULTS

PARTICIPANTS (N = 14)			
	Senior Medical Officers (SMOs)	2	(14.3%)
	Nuclear Medicine Technologists	6	(42.9%)
	Registered Nurses	2	(14.3%)
	Radio Pharmacist	1	(7.1%)
	Administrative Support Staff	3	(21.4%)

Stress Level Assessment (Total n=14)

Level (Total n=14)	Count	Percentage
 Low	8	57.1%
 Moderate	5	35.7%
 High	1	7.1%



Mean Burnout Score
18.3 ± 6.8
out of 40
(46%)

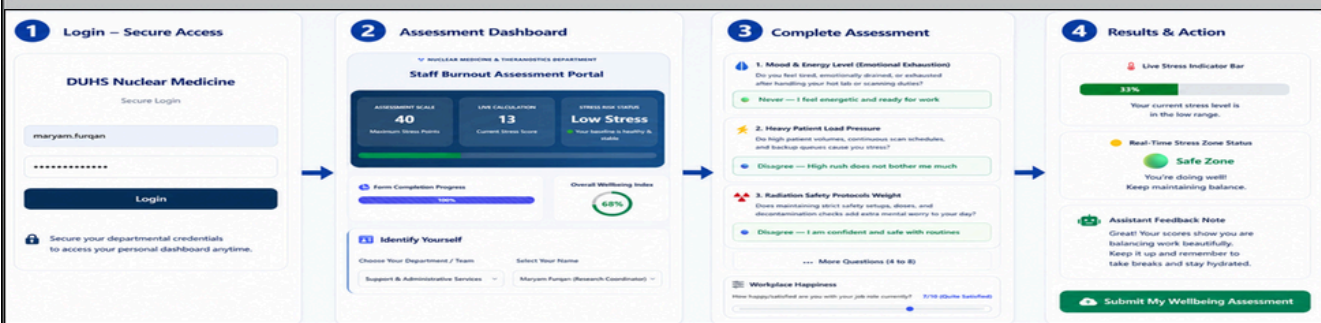
Moderate-to-High Stress
6 (42.9%)
participants

METHODOLOGY

VISUAL WORKFLOW:



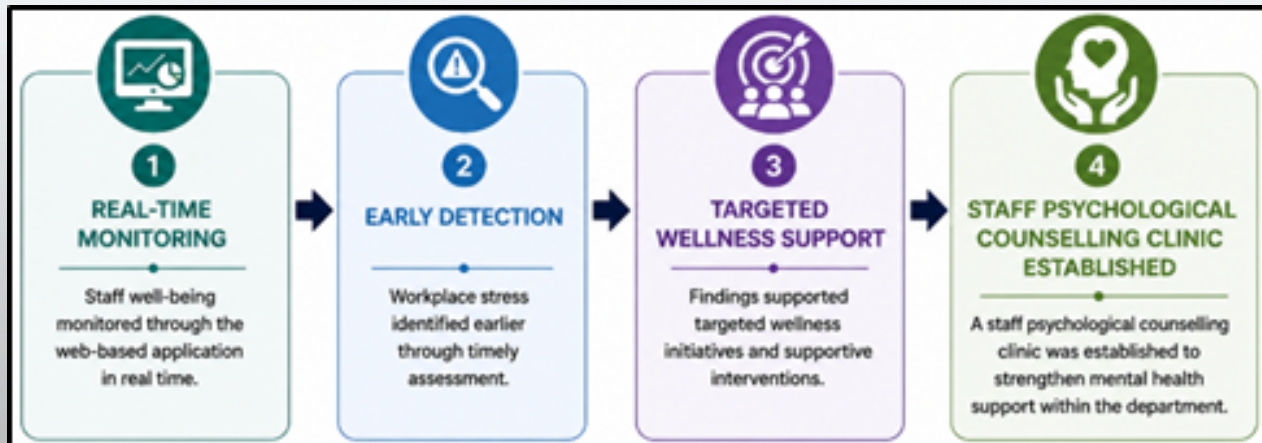
DIGITAL APPLICATION : ACTUAL INTERFACE OVERVIEW



WHY WAS A DIGITAL APPLICATION REQUIRED?



CONCLUSIONS



FUTURE RECOMMENDATIONS

-  Periodic Assessment : Repeat well-being assessments to monitor changes over time.
-  Longitudinal Tracking : Monitor individual and departmental stress & burnout trends.
-  Wellness Interventions : Connect identified needs with counselling and stress-management resources.