"Assessment of prevalence level of occupational health hazards among adults"

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Abstract

Adults are the largest group of healthcare workers in medical profession and experience a higher rate of workplace hazards exposure than other health care workers because adults assist and perform more bedside procedures. Healthcare organizations are characterized by multidimensional and complex environments that make adults prone to occupational hazards and injuries. Beside the nature of adults working environment, duties and responsibilities, adults are facing numerous occupational hazards such as chemical, biological, environmental, physical and psychological risk. Of the 150 sample, it has been found that The table reveals that the prevalence of occupational health hazard among adults having mild prevalence in adults is 49.33% and 50.67% moderate prevalence among adults. It has also found that none of adults having severe prevalence of occupational hazards among adults. It is very important to aware and educate them associated with NGOs, Government Health care centre.

Keywords: Assessment, Prevalence, Occupation health hazards and adults

Introduction

Nursing is a profession within the health care sector focused on the care of individuals, families and communities; so, they must attain, or recover optimal health and quality of life. Adults are the largest group of healthcare workers in medical profession and experience a higher rate of workplace hazards exposure than other health care workers because adults assist and perform more bedside procedures. Healthcare organizations are characterized by multidimensional and complex environments that make adults prone to occupational hazards and injuries. Beside the nature of adults working environment, duties and responsibilities, adults are facing numerous occupational hazards such as chemical, biological, environmental, physical and psychological risk.

Nursing is associated with marvellous physical and biochemical threats. In malice of the danger complex, usage of Personal Protective Gears (PPGs) among welders in developed countries has been reported to be less, due to their incomplete consciousness of occupational hazards. Although present time have highly effective antibiotics but every year 40-50 adults suffer from many types of health issue fourteen -fifteen adult life admitted in hospital each year. Although approximately Nine workers every year grow breathing difficulty and asthma so seriously. Many adults' complaint of coughing and respiratory like throat irritation after first week of starting welding jobs frequently long-lasting properties.

Review of Literature

Alsheikh GYM et al., (2021), conducted a cross- sectional study on occupational hazards among health workers in hospitals of Mukalla city, Yemen. The prevalence of biological hazards among the healthcare workers accounted for 298 (76%) whereas the non-biological hazards accounted for 306 (78%). The most prevalent biological hazards are needle prick injury (80%) followed by exposure to contact with contaminated material (75%), while the most frequent non-biological hazards are back pain (79%) followed by extra-time work (72%). In logistic regression age, gender and duration of work and professional category have significant association with exposure of health workers to biological hazards while only gender is the only variable associated with non-biological hazards.[3]

Ashok Kumar Thirunavukkarasu et al., (2021), conducted a cross- sectional study on prevalence and risk factors of occupational health hazards among health care workers at Northern Saudi Arabia among 438 randomly selected health care workers. The study shows that health care workers exposed to needle stick injuries (34.5%), infections (31.3 %), work related stress (69.6%) and musculoskeletal problems such as muscle aches/ strain / sprain (39.7%). hazards throughout hospital departments are highly variable.[4]

Amare TG et al., (2021), conducted a cross- sectional study on exposure to occupational health hazards among nursing and midwifery students during clinical practice at Mekelle University, USA among 151 students. The findings of the study reported that the prevalence of psychosocial hazards, mechanical hazards, biological hazards and physical hazards was 140(92.7%), 128(84.8%), 100(66.2%) and 100(66.2%) respectively.[5]

Amal Ahmed Elibilgapy et al., (2019), conducted a quasi-experimental research on occupational hazards and safety nursing guidelines for paediatric adults in the health care setting at Mansoura University, Egypt among 173 Paediatric adults. The findings of the study reported that physical hazards exposure more than 2/3 of the studied adults had complain from fatigue back pain and leg pain (77.9%, 69.5% and 56.8% respectively).[6] A cross-sectional study was conducted involving 172 health care personnel working in 22 urban primary health centres and four community health centres in the Bhubaneswar Block of the Khordha district in the state of Odisha, during the period from January to December 2017. Relevant data were collected using a semi-structured interview schedule. Results Overall, 143 (83.1%) of the participants reported experiencing occupational health hazards, with 89 (51.7%) encountering biological hazards and 130 (75.6%) experiencing non-biological hazards. Stress (38.9%), assault (38.4%), needle-stick injury (34.3%), and direct contact with contaminated specimens/body fluids (32.6%) were the most frequently experienced occupational hazards. Multivariate regression analysis revealed that female gender, health care personnel other than doctors, working overtime, dissatisfaction with workplace atmosphere, and not using the necessary personal protective equipment (PPE) were independent predictors for experiencing a biological hazard. Similarly, female gender, presence of family conflict, and not using the required PPE were found to be independent predictors for experiencing non-biological hazards.[7]

David Chinaecherem Innocent et al., (2022), conducted a cross- sectional study on Examination of common occupational hazards among health worker in a university healthcare centre in South-eastern Nigeria. A total of 94 respondents who participated in the study and among the participants, 33.3% (31) of the respondents were aged 31 - 40 years, and the majority of the health workers, 43.6% (41) had stayed between 1 - 5 years. Also, 92.6% 87) of the health workers have heard of occupational hazards. The study showed that 84.0% (79) of health workers had good knowledge of common occupational hazards. Biological hazards among health workers are 47.9% (45) cuts and wounds, 29.8% (28) direct contact with contaminated specimens/hazardous materials, and 26.6% (26) sharp related injuries, while for non-biological hazards, 44.7% (42) have slipped, tripped or fallen, and 35.1% (33) have been stressed. Common safety measures include 86.2% (81) washing their hands regularly; 78.7% (74) using hand gloves; and 85.1% (80) agreeing they use face masks.[2]

Ewnetu Ayenew et al., (2022), conducted a cross- sectional study on prevalence of work- related health hazards and associated factors among health workers in public health institution of Gambella Town, western Ethiopia. The prevalence of occupational health hazards among healthcare workers was 36.5% (95% CI: 31, 42). The absence of immediate treatments for injured health workers (AOR = 8.86, 95% CI: 2.5, 31.4), lack of personal protective equipment (AOR = 3.6, 95% CI: 1.5, 8.4), working greater than eight hours per day (AOR = 7.9, 95% CI: 3.1, 19.7), working in the night shifts (AOR = 8.1, 95% CI: 2.5, 26.1), and absence of effective leadership in the health facility (AOR = 5.2, 95% CI: 1.9,14.5) were factors associated with the prevalence of occupational hazards.[1]

Rathish Rajan (2017) conducted a cross sectional study on assessment of prevalence and risk factors of occupational hazards among adults working in medical college and hospital Thiruvanthapuram among 323 staff adults working in different setting of the hospital. The finding shows that 72.9% had needle stick injuries, 78.6% had musculoskeletal disorder, 38.4% had allergy and 39.3% staff adults had some sort of infections.[8]

Aims of the study

The primary aim of the study is to assess the prevalence of occupationalhazards.

Research methodology

Research approach: - Quantitative descriptive approach will be used.

Research Design: - Descriptive Research design.

Setting of the study: - The study will be conducted in Narayana clinic, gurugram

Population: - All the adults working in different wards of Narayana clinic, gurugram

Sample: - All the adults working in different wards of Narayana clinic, gurugram and who will be present at the time of data collection.

Sample Size: 150 adults working at clinic.

S**ampling technique:** Probability simple random sampling technique will be used for this study.

Research variables: age, gender, qualification, designation, year of experience, department,occupational status, immunization, work load.

Criteria for selection of samples:

Inclusion criteria: All the adults who will be working in different wards (general wards, ICUs, Paediatric ward, pulmonary ward, OT, cancer ward, radiation therapy ward, chemo ward) of Naryana Clinic, gurugram. All the adults who will be available at the time of data collection. All the adults who will be willing to participate in the study.

Exclusion criteria: Those adults who are not willing to participate in the study.

Brief process of Data collection: Data collection procedure will be carried out after obtaining prior permission from authorized person of Narayana clinic, gurugram, haryana Data collection will be done for a period of 15 days. After getting written informed consent from the subjects, data will be collected by using self-structured questionnaires.

Validity of the tools: It will be determined by nursing and research expert.

Reliability of the tools: Split- half method

Characteristics of study: Administrations of Self structured questionnaire.

Pilot study: It will be conducted on $1/10^{th}$ sample size excluded from main study to find outfeasibility of the study for reliability of the tool.

Type of study: Single centered.

Results

Table 1 ASSESS THE PREVALENCE OF OCCUPATIONAL HEALTH HAZARD AMONG ADULTS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mild	74	49.33	49.33	49.33
	Moderate	76	50.67	50.67	100.0
	Total	150	100.0	100.0	

The table reveals that the prevalence of occupational health hazard among adults having mild prevalence in adults is 49.33% and 50.67% moderate prevalence among adults. It has also found that none of adults having severe prevalence of occupational hazards among adults.

Conclusion

The main purpose is to assess the prevalence of occupational health hazard among the adults. The analysis has been done using SPSS IBM 22.0 version. It has been found that half the adults having moderate prevalence of occupational health hazards and rest having mild prevalence among adults. Adults are the largest group of healthcare workers in medical profession and experience a higher rate of workplace hazards exposure than other health care workers because adults assist and perform more bedside procedures. Healthcare organizations are characterized by multidimensional and complex environments that make adults prone to occupational hazards and injuries. Beside the nature of adults working environment, duties and responsibilities, adults are facing numerous occupational hazards such as chemical, biological, environmental, physical and psychological risk.

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