Towards developing a Radiation Protection Culture in Diagnostic Radiology practice in Nigeria

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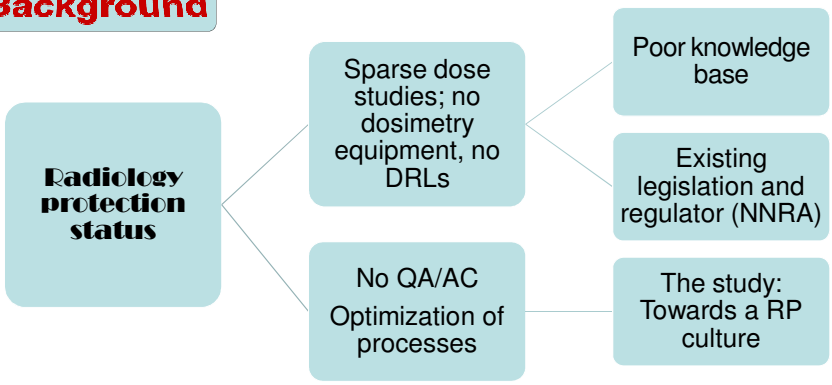
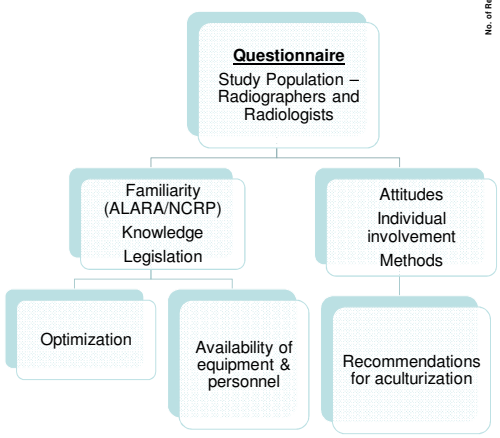
Abstract

Studies have highlighted concerns about poor adherence to radiation protection guidelines in Diagnostic Radiology service delivery in Nigeria. This study sought to identify reasons for this, and explore the challenges militating against development of a radiation protection culture among medical radiation users in the country. 155(67.4%) filled questionnaires from 230 administered questionnaires were used to assess information on familiarity, knowledge, attitudes, procedures and techniques in radiation protection dose optimization, individual participation, methods and challenges of optimization and protection, quality of personnel, legislation and level of training received by respondents on radiation protection from practicing radiographers and Radiologists in public and private clinics. Data analysis was at the 95% confidence interval. Findings show that while all respondents claimed familiarity with the ALARA and NCRP guidelines for Radiation protection, 119 (76.8%) were not usually involved in radiation protection during their work. Reasons for this ranged from workload, unavailability of protection equipment and personnel. At least 87% of respondents felt that regular monitoring of protection protocols would compel them to implement practice. The findings are suggestive of a need for attitudinal change among radiation users as a first step towards adopting the radiation protection culture in Nigeria.

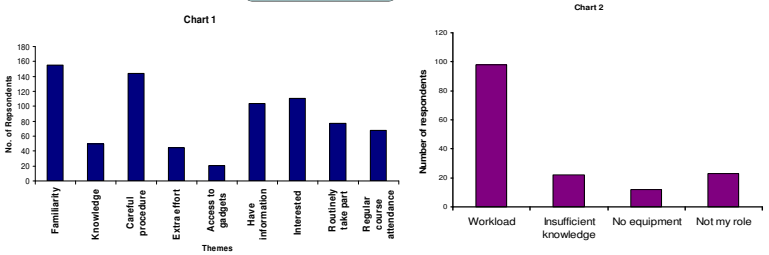
Background

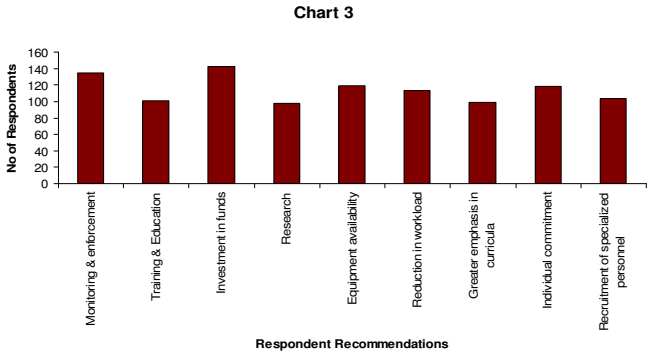


Materials/Methods



Results





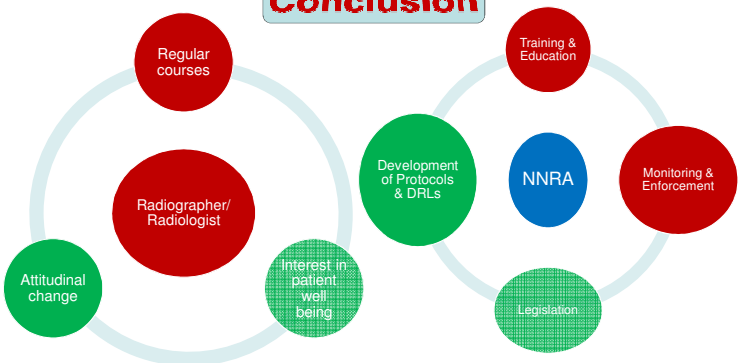
Discussion

Chart 1
- Theoretical familiarity not translated to practice
- Interest and attitudes to protection are shallow
- Low knowledge base of RP procedures outside choice of technique/collimation of beam.
- RP Course attendance low;

Chart 2
- Heavy workloads/poor staffing
- Low self confidence due to poor knowledge base
- Lack of RP equipment/Personnel
- RP not seen as everyone's role

Chart 3
- ***Way forward***
- Monitoring & Enforcement needed
  - Investment in funds
  - Individual commitment
  - Training, Education & Research
  - Reduced workload/Improved staffing

Conclusion



Commitment from regulators and practitioners will form the driving force towards developing a Radiation Protection culture in Nigeria.

References
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3. Egbe et al. Doses and image quality for chest radiographs in three Nigerian hospitals. European Journal of Radiography (2009) 1: 30 – 36. DOI:10.1016/j.ejradi.2008.09.001.

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