

## ABSTRACT

**Introduction-** With the advancement of technology majority of occupations resorted to digital devices to optimize work output. Banking is one such occupation. Digital eye strain is the most common occupational hazard among users of digital devices. Banking assistants are the most exposed of all bank employees to digital devices during their work.

**Objectives** – This study aimed to determine the proportion of those with digital eye strain (DES), associated factors and to describe the barriers in minimizing it among banking assistants in the Thimbrigasyaya divisional secretariat division.

**Methods** - A descriptive cross-sectional study was carried out. among banking assistants working in government, semi government and private banks within the Thimbrigasyaya divisional secretariat area. Random sampling was used to choose three banks of all eligible banks and thereafter systematic sampling was used to select 372 banking assistants from these banks. Data was collected using a structured pretested self-administered questionnaire that included sections on socio-demographic characteristics, factors associated with DES (that included sections on knowledge and practices related to DES) and barriers related to preventing DES. DES was detected using computer vision syndrome questionnaire (CVS-Q). Data entry and analysis was carried out using the Statistical Package for Social Sciences (SPSS) version 21.0. Socio-demographic characteristics of the study population were described using frequency distributions. Those with DES were calculated using the score obtained from the questionnaire. Both the knowledge score and practice scores were calculated using a predetermined scientific method. Individual knowledge and practices were also described and presented as frequency distributions. These factors along with other selected factors, were cross tabulated to the presence and absence of DES and the association was assessed using chi square. A p value of 0.05 was used to determine the significance.

**Results** – A response rate was 94.08%. DES was detected in 70.6% of employees. Although 65.4% had a good knowledge only 42.6% had good practices regarding digital device usage. Being older than 35 years ( $p<0.001$ ), being married ( $p<0.001$ ), being a graduate ( $p=0.002$ ) working in the operational section ( $p<0.001$ ), possessing a good level of knowledge regarding DES ( $p<0.001$ ), possessing a good level of practices regarding digital devices ( $p<0.001$ ), using digital devices for a total duration of 3 hours or less per day ( $p=0.001$ ), using digital devices for a duration of one hour or less at a stretch, ( $p=0.005$ ), keeping the digital device below eye level ( $p=0.014$ ), taking breaks every half an hour when using digital devices ( $p<0.0001$ ), blinking voluntarily when using digital devices ( $p<0.001$ ), using a glare filter ( $p<0.001$ ), using computer glasses ( $p<0.001$ ), adjusting screen brightness ( $p=0.001$ ), cleaning the screen of the digital device daily ( $p=0.009$ ), having a refractive error ( $p<0.001$ ), was found to be significantly associated with the presence of DES. Tight schedule (60.6%) strict deadlines (61.4%) were the most commonly identified barriers.

### **Conclusions and Recommendations.**

The proportion of banking assistants detected with DES in the Thimbirigasyaya divisional secretariat division was high. Factors identified as being associated with the presence of DES as well as the barriers identified should be taken into account when planning and implementing measures to prevent DES among this study population.

**Key words:** Digital eye strain, banking assistants, barriers, factors associated