



Do Operating Room Work Environments Associate With Personnel's Contact Lenses' Abandonment? A Questionnaire Study Worth Exploring

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Background

Since the time when our department's paper [1] was published about the potential incidence of dry eye problems in relation to operating room environments, the thought process has been in the need for further clinical research investigation. To gauge the potential of our operating room environments possibly affecting the eyes of our operating room personnel, it becomes more worthwhile to investigate especially when there is growing concerns about how the general population (in multi-million numbers [2]) has been unknowingly using their contact lenses inappropriately, how often they are abandoning their contact lens use completely and what the reasons are for abandoning contact lenses' use [3-10]. Considering the high incidence of symptoms of eye discomfort among operating room personnel [11], it is time to investigate whether the abandonment of contact lenses' use is associated with working in the operating room environments which per the guidelines of American Institute of Architects, have to maintain higher air changes per hour in the colder and dryer operating rooms as compared to the other hospital rooms [1]. Additionally, the contact lenses themselves may interfere with the hydration and oxygenation of the users' eyes [12-13].

Aims and Objectives

The purpose of this envisaged questionnaire study can be to ascertain whether our operating rooms environments associate with personnel's contact lenses' abandonment in our hospitals.

Methods

Inclusion Criteria

1. All operating room personnel who all regularly stay inside operating rooms for extended periods of time like anesthesiology residents, certified registered nurse anesthetists, surgical techs acting as "scrub" and registered nurses acting as circulators
2. All preoperative holding area registered nurses who

do NOT work inside operating rooms can act as controls for the abovementioned operating room personnel group

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After Institutional Review Board approval for questionnaire study with WAIVED CONSENT, all anesthesiology residents, certified registered nurse anesthetists, surgical techs acting as "scrub" inside operating rooms, and registered nurses acting as circulators inside operating rooms (as study subjects) and correspondingly, all preoperative holding registered nurses who do NOT work inside operating rooms (as control subjects) can be assessed for the following: age, sex, years of working in operating rooms, current or past use of contact lenses for refraction errors, current or past use of glasses for refraction errors, change in preference (if any) for contact lenses vs. glasses since started working in the operating rooms, and reason for the change in preference (if any).

Statistical Analysis and Sample Size

The proportions can be compared with Chi Square test (Fisher Exact Tests) while means can be compared with analysis of variance with p-value < 0.05 being significant.Â

Envisaged Data Sheet

Date

Personnel S. No.

Age

Sex

Years of working inside the operating rooms
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(Note: Personnel Responding "0 years" Act As Controls)

Do you use contact lenses for refraction errors?
 Yes/No/Not Applicable

Were you ever using contact lenses for refraction errors? Yes/No/Not Applicable

Do you use glasses for refraction errors? Yes/No/Not Applicable

Were you ever using glasses for refraction errors? Yes/No/Not Applicable

Did your preference (use of contact lenses vs. use of glasses) changed since working in operating rooms? Yes/No/Not Applicable

What do you prefer while you have been working in operating rooms? Contact Lenses/Glasses/Neither/Not Applicable

What did you prefer when you weren't working in operating rooms? Contact Lenses/Glasses/Neither/Not Applicable

If preference changed, why did your preference change? Dry Eyes/Irritation/Inflammation/Infections/Prescription Changed/Others(Free Text)

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