

Should Colour Vision Deficiency be a Factor for Considering Admission to Nursing Education Programs?

Colour vision deficiency (CVD) is the inability to distinguish certain shades of colour. The term colour blindness is also used to describe this visual condition.¹ The most common forms of CVD are inherited and associated with the inability to discriminate between red and green wavelengths.² For a medical/nursing student or health professional, it can be considered a profound concern as CVD (if progressive) may be a factor of crafting errors during clinical practice. Unambiguously, nursing professionals deal with sensitive factors i.e. assessment of patient and body fluids, administration of medication, observation of labs, and graphical visuals on monitors and machines where CVD (if progressive) is a vital factor to be considered. Some of the classical examples that a nurse with CVD may find difficult to identify include; assessment of skin in anaemia and conjunctiva colour, assessment of pharyngitis in which the red colour of the throat does not look so red to a nurse with CVD, blood in urine seems black in case of CVD where the diagnosis of haematuria is compromised, venous blood looks more black than red, difficulty in distinguishing between the arterial and venous route of administration, risk of misidentification of vein as an artery, misinterpretation of the ECG as it contains red lines, collection of the sample in the wrong container as for blood sampling specific colour of the top are used and their misidentification may affect the lab results.³

Concerns regarding the selection of CVD individuals in nursing education programs and its implications on the individual i.e. the individual right to choose a profession *versus* the safety of patients i.e. the risk that is associated with clinical practice of CVD individuals. There are no universal, regional, and local guidelines on fitness to enrol students in nursing education programs. Pakistan Nursing Council (PNC) provide guidelines about the educational and professional minimum standards, however, lacks significantly about clear decisions about aspiring students with CVD. The policy guidelines provided by HEC talk about the cases related to disability and the course of action that should be taken in case a person with a disability desires to be admitted to the higher education program.

Another argument is that for instance, the candidate's level of CVD is under considerable range at the time of admission but in later stages, if the disease progresses then it could lead to a person being unable to identify the difference between basic colours like red, green, and blue then would it be fair with that individual? As in this case, the person will be unable to work as a clinical nurse and secondly, would this be considered a safe

nursing practice concerning patient care? This aspect was debated in detail and the conclusion that the committee proposed that the probability of progressing the disease is rare or depends on several factors. As per studies, congenital CVD is non-progressive and acquired CVD may be progressive or regressive which may lead to affect one or both eyes and may affect only a specific part of the vision.⁴ A CVD may be caused by any ocular system disorder or any toxic substances induced. The severity is usually of ACVD may be associated with loss of visual acuity and visual field disorders.⁵ Therefore, it can be said that upon completion of nursing education if such a situation arises which seems rare then the individual will have the opportunity to explore a career in nursing education, administration and research domain where the interaction with the patient is minimal or absent and CVD may not affect their work.

It can be said that a person having CVD should be provided equal opportunity for admission in a nursing education program subject to the level of CVD. Clear guidelines by national and international regulatory bodies are required especially in the context of Pakistan. HEC and PNC need to play an active role in formulating the guidelines as every individual deserves an equal opportunity to be admitted in the field of education that they deem suitable for themselves and therefore, the policies need to be non-discriminatory. The students having CVD, having enthusiasm about the nursing field, should be governed with fair, suitable and concise guidelines where the care of the patient is minimised to the optimum level and the student is awarded a prospect to contribute his/her role in the field of Nursing. The guidelines addressing this issue must be developed that may provide an equal and merited prospect to all.

COMPETING INTEREST:

The authors declared no competing interest.

AUTHORS' CONTRIBUTION:

SKP: Conceptualised the idea and designed the outline of the manuscript, reviewed the first draft and prepared the final draft.

SA: Prepared the first draft and reviewed the final draft.

SN: Did literature search, assisted in preparing the first draft and reviewed the final draft.

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