The Effect of Photographs of Visible Genetic Conditions on Quality of Life Perceptions

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Historically, medical photographs are used to demonstrate dysmorphic features and characteristic presentations of genetic conditions. Traditional, pictorial depictions of genetic conditions typically involve nude subjects against walls to emphasize their features. These stark, black and white photographs may negatively influence students’ perceptions of the depicted individual. To assess the influence of photographs on a viewer’s perception, 649 students from medical, nursing, genetic counseling and dental programs were surveyed in a cross-over study. Students were randomized to view a traditional or a natural photograph of three distinct genetic conditions followed by a natural or a traditional photograph, respectively, of the same conditions. Perceptions of the individual and their quality of life were assessed using Likert scale and yes/no adjective-association questions. Affected individuals were more often associated with positive characteristics (e.g. beautiful, respectful, intelligence, higher quality of life, etc) when presented in natural settings and negative characteristics (e.g. degrading, institutionalized, humiliating, neglected, etc.) when depicted in traditional photographs (p<0.05). These associations were evident regardless of which photograph was viewed first. Furthermore, the nature of the first photograph influenced how much more positive or negative the second photograph was perceived. Although overall trends remained the same, the type of healthcare program influenced the magnitude of the effect; genetic counseling students tended to have more positive perceptions than medical, dental, and nursing students (p<0.05). These results suggest that using natural images for healthcare education may positively impact viewer’s perceptions and potentially neutralize negative biases associated with genetic conditions.

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