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Global issues

Inequality in cataract blindness and services: moving beyond unidimensional analyses of social position

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Abstract

Objective Inequalities in cataract blindness are well known, but data are rarely disaggregated to explore the combined effects of a range of axes describing social disadvantage. We examined inequalities in cataract blindness and services at the intersection of three social axes.

Methods Three dichotomous social variables (sex (male/female); place of residence (urban/rural); literacy (literate/illiterate)) from cross-sectional national blindness surveys in Pakistan (2001–2004; n=16 507) and Nigeria (2005–2007; n=13 591) were used to construct eight subgroups, with disadvantaged subgroups selected a priori (ie, women, rural dwellers, illiterate). In each data set, the social distribution of cataract blindness, cataract surgical coverage (CSC) and effective cataract surgical coverage (eCSC) were examined. Inequalities were assessed comparing the best-off and worst-off subgroups using rate differences and rate ratios (RRs). Logistic regression was used to assess cumulative effects of multiple disadvantage.

Results Disadvantaged subgroups experienced higher prevalence of

cataract blindness, lower CSC and lower eCSC in both countries. A social gradient was present for CSC and eCSC, with coverage increasing as social position improved. Relative inequality in eCSC was approximately twice as high as CSC (Pakistan: eCSC RR 2.7 vs CSC RR 1.3; Nigeria: eCSC RR 8.7 vs CSC RR 4.1). Cumulative disadvantage was observed for all outcomes, deteriorating further with each additional axis along which disadvantage was experienced.

Conclusions Each outcome tended to be worse with the addition of each layer of social disadvantage. Illiterate, rural women fared worst in both settings. Moving beyond unidimensional analyses of social position identified subgroups in most need; this permits a more nuanced response to addressing the inequitable distribution of cataract blindness.

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Statistics from Altmetric.com

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Footnotes

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Contributors: JR conceived and designed the study, contributed to data analysis, and drafted and revised the manuscript. She is guarantor. ABZ interpreted the data, and drafted and revised the manuscript. ACL designed the study, analysed the data and revised the manuscript. IB

interpreted the data and revised the manuscript. CEG conceived and designed the study, interpreted the data and revised the manuscript. All authors approve the submission and agree to be accountable for the work.

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