Recognition & action to tackle acute bacterial meningitis in urban Blantyre

Desmond[1,2], Deborah Nyirenda[1], Elizabeth Molyneux[3], MacPherson Mallewa[1,2,3], David Lalloo[2], Robert S. Heyderman[1,2]

[1]Malawi-Liverpool-Wellcome Trust Clinical Research Programme, Malawi; [2]Liverpool School of Tropical Medicine, UK; [3]Queen Elizabeth Central Hospital, Malawi

Background

- More than 1 million cases of Acute Bacterial Meningitis (ABM) occur annually in Sub-Saharan Africa incl. Malawi
- Late presentation has been identified as a major contributor to high case fatality rates
- Prompt treatment is vital to effective management

Research Objectives

- To outline the stages for treatment seeking for ABM amongst those patients and their families who reach hospital care
- To identify barriers and facilitators to seeking definitive conventional medical treatment for ABM within the community and at each level of service provision
- To explore lay understandings of the symptoms of ABM within the broader socio-cultural perceptions of health and disease in Malawi
- To examine the effect of social environment on recognition of disease severity and willingness or ability to take action

Study setting

Queen Elizabeth Central Hospital (QECH) & communities in urban & peri-urban Blantyre, Southern Region

Methods

- Cross-sectional qualitative study of 17 adults & infants presenting to QECH with ABM
- Purposive sampling & staged recruitment
- In-depth case history interviews based on estimated cases of probable & proven ABM amongst adults & infants estimated likely number for data saturation
- Qualitative investigation of health seeking behaviour & the meaning of meningitis at community-level through 8 Focus Group Discussions (FGD)
- Recruitment through established peer groups stratified by age & sex
- 20 semi-structured interviews with randomly selected Health Care Workers (HCW) stratified proportionally by cadre

Results

Recognition	HCW	Misdiagnosis as malaria	Misdiagnosed in 7 of 9 paediatric 5 of 8 adult cases	*'Meningitis it's not far away from malaria signs and symptoms, but there is the only difference which is neck stiffness'* **HCW Zingwangwa**
		Diagnosis practices	Diagnosis without examination Lack of follow up Mistreatment normalised	*'The woman comes, you think that it is not malaria, you just give them painkillers they go home. Then after 2/3 days they come back, they say there is no improvement. We think that woman is just demanding for nothing. May be we send them back home, but we are supposed to investigate further'* **HCW Zingwangwa**
	Community	Recognition of severity	Inability to eat Inability to work Failure in mobility	*'So from there he was still working but it reached a point that he couldn't work like his strength was reducing ... so when he started being weak like that it was when he changed from there it was when he was picked up by other people who work at Queens'* **45 year old father of Samson, aged 22 & meningitis victim**
		Social validation of illness	Collective decision-making Persuasion of adult to seek treatment Neighbours verify need to use resources for child illness	*' ... we forced him because he was saying "I'm fine the head is not paining me". So his elder brother was the one who said " no you need to go to hospital, you should go because there is also powerful medicine ...'* **19 year old wife of Henry, aged 38 & meningitis victim**
Action	Community	Financial constraints	Preventing, delaying & reducing quality of treatment seeking	*'But the way they saw the child, telling a person to go to Queens but they didn't have transport, the wife delayed because of borrowing money, the child died on the way'* **FGD female adults, Mpemba**
		Perceptions of health services	Inconsistent availability of medical professionals Long waiting times Prescriptions without examination	*'You can go there early in the morning maybe, you can leave home at 7o'clock to go to the hospital, but the time they help you its 12 o'clock or they may close it'* **FGD with female adults, Mpemba**
		Gendered & age-based foundation to decision-making	Husband responsible for own treatment decisions but male reticence to seek healthcare due to concepts of wellness & masculinity – 1st visit often delayed until emergency following weeks of illness	Mother responsible for treatment decision for children but requires social validation though 1st visit often within 3 days Women delay due to domestic role & need to seek permission of husband
	HCW	Priority focus on maternal health		

Conclusions

- Meningitis prevention is dependent on reactive, secondary prevention through prompt treatment seeking
- The ability to recognise severe illness as it presents in children and adults respectively necessarily precedes treatment seeking and we have identified barriers to recognition at both community and primary health level
- We have also identified barriers to action once severe illness is acknowledged
- Public health and targeted health worker campaigns are needed to increase capacity to respond to severe illness at both community and primary health care levels.

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