

Abstract

Title: Acceptability of Isoniazid Preventative Therapy for Tuberculosis among healthcare workers in Gaborone, Botswana

Background

Botswana is among the highest TB/HIV burden countries in the world, over 50% of TB patients are co-infected with HIV and 40% of AIDS deaths are due to TB. TB Preventative Therapy (TPT) is one of the strategies used to prevent the spread of TB worldwide. Isoniazid Preventive Therapy (IPT) is a form of TPT and several studies have demonstrated its effectiveness, it involves the TB drug Isoniazid (INH) being administered daily for six months to eligible individuals. IPT is currently being rolled out in Botswana and as the country implements the strategy, factors that may affect its implementation need to be evaluated. One factor which has not been studied and possibly contributes to poor implementation and use of IPT is its acceptability by health care workers (HCWs). The aim of this study is to assess the acceptability of IPT and the factors influencing its acceptability by HCWs in Gaborone, Botswana. This will be assessed by determining the acceptability of IPT amongst healthcare workers, investigating the factors that influence the acceptability. Finally, the relationship between acceptability and the factors influencing it will be determined.

Methods

This was a cross sectional study, conducted using an explanatory sequential mixed methods design carried out in 2 phases; an initial quantitative phase, followed by a qualitative phase.

Quantitative data was collected from 97 healthcare workers, in 19 health facilities in Gaborone using self-administered questionnaires, which aimed to determine the level of acceptability of

IPT among HCWs and the factors influencing their acceptability. The acceptability implementation measure (AIM) questionnaire has 4 questions which provide a reliable and valid measure of acceptability. The AIM questionnaire was incorporated into the questionnaire in this study and used to measure acceptability of IPT. The theoretical framework of acceptability (TFA) is a multi-construct framework, which can be used to assess acceptability of healthcare interventions from the perspective of both the intervention providers and the recipients. The TFA was used to determine factors influencing acceptability of IPT in this study. Firstly, descriptive analysis of all the data was carried out. To compare the acceptability between groups, linear regression models were fitted. The findings were used to inform the qualitative phase of the study which involved in depth interviews with 6 healthcare workers that had a low acceptability score on the questionnaires. Transcription and translation of the interviews was carried out and a coding matrix was developed using the TFA. The interviews were further analysed by doing thematic analysis.

Results

The overall mean acceptability score amongst the 97 healthcare workers who completed the questionnaire was 3.51 and the median acceptability score was 3.5 (IQR: 1.25-5). Factors that showed a statistically significant relationship with acceptability in the quantitative section were affective attitude and burden. HCWs had a good attitude towards IPT and didn't see it as a burden, which reflected a high acceptability of the intervention. Thematic analysis of in-depth interviews with HCWs with low acceptability scores divided factors affecting acceptability into healthcare worker related factors and intervention related factors. They further highlighted burden and perceived effectiveness of IPT by HCWs as affecting acceptability. Therefore,

burden emerged as an important factor in determining acceptability in both sections of the study. Analysis that was carried out to assess for any differences in acceptability by various categories showed a statistically significant difference in acceptability scores between different health facilities and occupations.

Conclusion

Acceptability of IPT amongst healthcare workers in Gaborone is dependent on their affective attitude and whether they consider it a burden. Overall, IPT was an acceptable intervention amongst healthcare workers, this implies that IPT will be implemented well if the factors affecting it are closely addressed. Most of the work related to implementing IPT in this context appears to be done by nurses, therefore interventions and policies would be better targeted towards them. The findings of this study have implications for TB program policy makers in the Botswana Ministry of Health. This study also highlights the importance of considering implementation outcomes such as acceptability, and factors that influence these outcomes, when introducing a new intervention and not just focusing on the logistical and financial aspects.

Key words: Acceptability, Tuberculosis, Isoniazid, Preventative, Healthcare workers