ABSTRAK

Latar belakang: Stagnasi insiden penyebab kematian yang dapat dicegah dan tingginya angka kematian ibu di Indonesia, memerlukan strategi pendekatan berbasis *evidence* dalam setiap kajian audit maternal untuk mengidentifikasi permasalahan spesifik di masing-masing wilayah. Untuk dapat menyusun *evidence-based recommendation* pada kajian audit maternal, maka dibutuhkan pengembangan instrumen kajian audit maternal yang memberikan panduan berbasis bukti teruji valid, reliabel, dan akseptabel.

Metode: Penelitian dengan rancangan *multiphase sequential mixed methods*. Tahap I, penelitian kualitatif mengeksplorasi hambatan dan kebutuhan penyusunan *evidence-based recommendation* pada kajian audit maternal. Hasil tahap I digunakan sebagai bahan menyusun konsep, indikator dan item untuk model awal instrumen. Desain kuantitatif tahap II dan III untuk menguji validitas dan reliabilitas. Uji reliabilitas dilakukan pengkajian 113 kasus kematian ibu oleh tim pengkaji kabupaten/kota (internal) dan tim pengkaji provinsi Jawa Tengah (eksternal) dan dilakukan penghitungan *inter-rater reliability* (Fleiss *kappa* (κ)). Tahap IV, desain kualitatif menilai akseptabilitas instrumen dengan pengamatan selama pengkajian pada uji reliabilitas.

Hasil: *Focus Group Discussion* (FGD) di 5 kabupaten Jawa Tengah pada tahap I menghasilkan 1 tema pelaksanaan audit maternal tajam ke bawah tumpul ke atas dan 4 sub-tema hambatan kajian audit maternal: 1) instrumen audit yang tidak informatif menghasilkan data yang tidak reliabel; 2) tidak ada indikator standar klinis dan pengkajian "tajam ke bawah, tumpul ke atas"; 3) kurangnya komitmen dan dukungan dari pimpinan rumah sakit; dan 4) budaya menyalahkan, kurangnya pelatihan, dan ketrampilan pada tim Audit Maternal Perinatal (AMP). Kebutuhan akan konsep *evidence-based recommendation* pada instrumen kajian menghasilkan 5 tema yaitu *framework*, identifikasi kematian ibu, analisis kajian sistematik, rekomendasi yang efektif dan rencana tindak-lanjut. Pada *framework* diidentifikasi kebutuhan penamaan instrumen audit yang mendukung internalisasi prinsip audit, menjadikan E-MPATI (**E**lektronik-I**mp**lementasi K**a**jian Kema**ti**an **I**bu) sebagai nama instrumen. Nilai validitas tinggi pada uji validitas isi (CVI=1) dan uji keterbacaan instrumen. Pada kajian 113 kasus kematian ibu, didapatkan hasil *overall kappa* (κ)= 0,86 (95%CI 0,76-0,96); p<0,001 dalam menentukan penyebab kematian obstetri primer (mendasari) berdasarkan *International Classification of Diseases-Maternal Mortality* (ICD-MM). Hasil kesepakatan tinggi pada kedua tim pengkaji dalam menentukan kategori kasus dapat dicegah (κ = 0,68 (95%CI 0,50-0,87); p<0,001). Kesepakatan penilaian keterlambatan, tertinggi di postpartum *overall* κ=0,58 (95%CI 0,42-0,74); p<0,001 dan keterlambatan fase tiganya dengan nilai kappa yang tinggi (κ= 0,61). Kesepakatan yang rendah pada fase 3 antenatal (κ = 0,49), kurang pada kehamilan muda (κ= 0,24) dan intrapartum (κ= 0,21). Permasalahan pelimpahan kewenangan pertolongan persalinan pervaginam patologis dan pemeriksaan antenatal yang menyebabkan kematian ibu menjadi dasar ketidaksepakatan saat menilai keterlambatan fase 3 di ante-intrapartum dan antenatal. Akseptabilitas instrumen E-MPATI memenuhi 7 dimensi konsep

akseptabilitas (sikap afektif, beban, etika, kesesuaian intervensi, keuntungan, persepsi efektifitas dan *self-efficacy*).

Kesimpulan: Instrumen E-MPATI berpotensi sebagai instrumen yang menjadi dasar penyusunan *evidence-based recommendation.* Pengembangan selanjutnya, dibutuhkan panduan kajian mengenai standar pelayanan sesuai tipe rumah sakit dan batasan pelimpahan kewenangan tindakan obstetri. Instrumen yang valid, reliabel dan akseptabel ini, bisa menjadi dasar dalam kajian audit maternal di kabupaten/kota dan penelitian untuk mengembangkan intervensi penurunan kematian ibu berdasarkan permasalahan spesifik di suatu wilayah.

Kata kunci: Kajian audit maternal, *evidence-based recommendation*, penyebab kematian ibu, rekomendasi

ABSTRACT

Background: *The high incidence of preventable causes of maternal death and maternal mortality rate in Indonesia require an evidence-based strategy in each maternal death review (MDR) to identify specific problems in all districts. To formulate evidence-based recommendations in MDR, it is necessary to develop an MDR instrument that provides evidence-based guidelines that have been tested to be valid, reliable, and acceptable.*

Methods: *A multiphase sequential mixed-methods study was conducted. The first stage was the qualitative research to explore the challenges and assess the need to formulate evidence-based recommendations in the MDR. The first phase results were used as components for drafting concepts, indicators, and items for the initial model with quantitative design in the second and third phases to evaluate the validity and reliability of the instrument. The reliability test was conducted by examining 113 maternal mortalities by the district review team (internal) and the Central Java province review team (external) with measuring inter-rater reliability by assessing Fleiss kappa (κ). The fourth phase with a qualitative design assessed the acceptability of the instrument by observing responses during the assessment on the reliability test.*

Results: *Focus Group Discussions (FGDs) in 5 districts of Central Java in phase 1 resulted in one theme, the inconsistent practice of "sharp downward, blunt upward" in the implementation of maternal audits, and the four sub-themes of barriers to MDR: 1) non-informative audit instruments provide unreliable data for review; 2) unstandardized clinical indicators and the inconsistent practice of "sharp downward, blunt upward"; 3) unaccountable hospital support and lack of leadership commitment and support from hospital leadership; and 4) blaming culture, minimal training, and insufficient MDA committee's skills. The need for evidence-based recommendations for applicable concepts in the MDR instrument resulted in 5 themes: the framework, identification of maternal deaths, systematic analysis of MDR, effective recommendations, and follow-up plans. The framework identifies the need for naming audit instruments that support the internalization of audit principles, and naming this instrument the Electronic Implementation of Maternal Death Review (E-MPATHY). The validity of E-MPATHY indicated high content validity test (CVI=1) and instrument readability. In the study of 113 cases of maternal mortality, the results obtained were overall kappa (κ) = 0.86 (95% CI 0.76-0.96); p<0.001 in determining the cause of primary (underlying) obstetric death based on the International Classification of Diseases ICD-MM. The two review teams showed substantial agreement in determining the category of preventable cases with κ = 0.68 (95%CI: 0.50-0.87); p<0.001). In delay assessment agreement, the highest was in postpartum with κ = 0.58 (95%CI: 0.42-0.74); p<0.001 and the third phase delay with substantial value of κ= 0.61. The agreement was moderate in the antenatal phase 3 (κ = 0.49), fair in early pregnancy (κ = 0.24) and intrapartum (κ = 0.21). Issues in task-shifting of assisted vaginal deliveries and antenatal examinations that cause maternal death are the basis of disagreement when assessing ante-intrapartum and antenatal phase 3 delays. The acceptability of the E-*

MPATHY instrument fulfils the seven dimensions of the acceptability concept (affective attitude, burden, ethics, appropriateness of intervention, opportunity cost, perceived effectiveness, and self-efficacy).

Conclusion: *The E-MPATHY instrument has a potential to serve as the basis of formulating evidence-based recommendations related to preventable maternal mortality. In its future development, it is necessary to develop the appropriate guidelines regarding service standards according to the type of hospital and task-shifting in assisted vaginal delivery. Finally, this valid, reliable, and acceptable instrument can be the basis for district-level MDR and applied in research to develop interventions for reducing maternal mortality based on region-specific problems.*

Keywords: *Maternal death review, evidence-based recommendation, causes of maternal death, recommendations*