PERINATAL MENTAL HEALTH CONSEQUENCES OF STILLBIRTH AND POTENTIAL INTERVENTIONS

Summary of Evidence from Low- and Middle-Income Countries

USAID FROM THE AMERICAN PEOPLE

MOMENTUM A Global Partnership for Health and Resilience

SEPTEMBER 2024

MOMENTUM works alongside governments, local and international private and civil society organizations, and other stakeholders to accelerate improvements in maternal, newborn, and child health services. Building on existing evidence and experience implementing global health programs and interventions, we help foster new ideas, partnerships, and approaches and strengthen the resiliency of health systems.

MOMENTUM Safe Surgery in Family Planning and Obstetrics is funded by the U.S. Agency for International Development (USAID) as part of the MOMENTUM suite of awards and implemented by EngenderHealth with partners IntraHealth, Johns Hopkins Center for Communication Programs, and London School of Hygiene & Tropical Medicine under USAID cooperative agreement #7200AA20CA00011. For more about MOMENTUM, visit www.usaidmomentum.org. The contents of this report are the sole responsibility of Engender Health and do not necessarily reflect the views of USAID or the United States Government.

@USAID_MOMENTUM @USAIDMOMENTUM USAID MOMENTUM USAID MOMENTUM

Cover photo: Korogocho, Kenya; Credit: Jonathan Torgovnik/Getty Images/Images of Empowerment

Suggested Citation

Blencowe, H., Sinha, S., Fariha, F., Kerac, T., Filippi, V. 2024. *Perinatal mental health consequences of stillbirth and potential interventions: Summary of evidence from low- and middle-income countries 2024*. Washington, DC: USAID MOMENTUM.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF BOXES

ACKNOWLEDGEMENTS

MOMENTUM Safe Surgery in Family Planning and Obstetrics, funded by the United States Agency for International Development, supports selected countries across three technical areas: surgical obstetric care (cesarean delivery, peripartum hysterectomy); long-acting reversible contraceptives/permanent methods and fistula prevention/care.

The work described in this report supplements work being undertaken by MOMENTUM Country and Global Leadership (MCGL) within the area of the 'silent burden' of perinatal mental health, which has included a landscape analysis of common perinatal mental health disorders in low- and middle- income countries.[1] To date, MCGL has undertaken more in-depth work exploring the link between adolescent sexual and reproductive health and perinatal mental health, recognizing adolescents to be at higher risk of adverse perinatal mental health, but also a group requiring tailored intervention to prevent and improve mental health outcomes.[2] This work builds on this by examining another high-risk group with specific needs: women who have experienced stillbirth.

ABBREVIATIONS

CPMD	Common perinatal mental health disorder
DASS	Depression Anxiety Stress Scale
ENND	Early neonatal death
EPDS	Edinburgh Postnatal Depression Scale
FIGO	International Federation of Gynecology and Obstetrics
HIC	High-income country
HSCL	Hopkins Symptoms Check List
ICM	International Confederation of Midwives
ISA	International Stillbirth Alliance
LAMRN	Lugina Africa Midwives Research Network
LMICs	Low- and middle-income countries
NND	Neonatal death
RMC	Respectful maternity care
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
UN-IGME	United Nations Inter-Agency Group for Child Mortality Estimation
USAID	United States Agency for International Development
WHO	World Health Organization

SUMMARY

Worldwide, around two million women experience stillbirth each year. Most of these deaths are preventable. Action to improve timely, equitable access to high-quality care is urgently needed to prevent these deaths but must be coupled with action to improve the supportive care that bereaved women receive to reduce psychological morbidity.

Key Findings

- Of 20 studies from 12 low- and middle- income countries (LMICs) included in this review, a median of 41% of women had evidence of depression in the year following stillbirth,* at least double the risk compared to after a surviving live birth.
- Over 600,000 women in sub-Saharan Africa and South Asia are likely to develop depression following experiencing a stillbirth each year.
- Large gaps in support for women experiencing stillbirth were identified, including:
  - Paucity of evidence for effective interventions to improve mental health outcomes for women after stillbirths in LMICs.
  - Lack of global guidance to manage the unique needs of bereaved mothers and families.
- Impacts on perinatal mental health of early neonatal deaths (ENND) are similar to those of stillbirth, and likely to be amenable to similar interventions.

Recommendations

- Include ENNDs alongside stillbirths in all perinatal bereavement care efforts.
- Close evidence gaps:
  - Systematically collate the evidence related to supportive care after stillbirth and neonatal death (NND) in LMICs.
  - Build on the existing evidence base to develop and implement culturally appropriate intervention packages to improve perinatal bereavement care across a range of different contexts.
  - Include bereaved women, husbands, partners, family, and wider community in intervention research; this may require additional research on impact on husbands and partners.
  - Explore how the needs of healthcare workers can be integrated into supportive bereavement care.
- Use evidence and examples of best practice to:
  - Agree upon principles for supportive care after a stillbirth or NND based on existing evidence and widespread stakeholder consultation including United Nations (UN) partners, professional associations, frontline health professionals, and bereaved parents with robust representation from high-burden settings.
  - Disseminate intervention results as they become available.
  - Update global guidance regularly based on emerging evidence.
- Implement now based on existing evidence:
  - Include stillbirth and NND awareness and communication training, including the unique needs of bereaved mothers, in all maternity-related pre- and in-service health provider training.
  - Where feasible, integrate into existing programs e.g., in Maternal and Perinatal Death Surveillance and Response guidance, the importance of communicating the cause of death back to parents.

* Nine studies also included early neonatal deaths.

BACKGROUND

Stillbirths are one of the world's most neglected tragedies. The estimated 1.9 million babies stillborn after 28 completed weeks of pregnancy in 2021 underestimates the overall burden of all fetal deaths from 22 weeks.[3] Each death has an impact on affected women, families, and healthcare workers. Yet, until very recently, national governments, United Nations (UN) organizations, and civil society institutions (including non-governmental organizations and professional associations) have given little attention to stillbirths. This lack of attention and the failure to include stillbirths in maternal child health dialogues exacerbates stigma towards women and leaves bereaved parents to deal with their grief alone.

In 2014, the Every Newborn Action Plan, endorsed by all 194 UN member states, included a stillbirth reduction target of 12 or fewer stillbirths per 1,000 births in every country by 2030, and to close equity gaps and disparities in stillbirth rates within every country.[4] As a result, the United Nations Inter-agency Group for Child Mortality Estimation (UN-IGME) now undertakes regular bi-annual national and global stillbirth rate estimates.[3] In addition, monitoring of milestones for progress towards the Every Newborn Action Plan targets includes a focus on stillbirth as part of the annual tracking survey to all 91 higher-mortality countries. Regular reports published by the World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) have highlighted slower progress for stillbirth than seen for maternal and child mortality reduction.[5-7] This has resulted in increased attention to the issue of stillbirth, with an increasing number of researchers and organizations widening their scopes to focus on stillbirth.

A strong body of evidence has existed for several years describing increased risks of adverse perinatal mental health outcomes associated with stillbirth in high-income countries (HICs).[8] However, newer evidence confirms that these impacts are also experienced by affected women across a wide range of low- and middle- income countries (LMICs), with increased vulnerability for women with obstetric complications.[9-12] These effects can be partly mitigated through timely, person-centered supportive bereavement care. The past decade has seen large advances in understanding experiences and care needs for affected women, partners, and families,[13] including the introduction of national care bereavement pathways in several HICs.[14-16]

In parallel to this increased attention to stillbirth, the global importance of mental health during pregnancy or in the first year after childbirth, 'perinatal mental health,' has also been brought out of the shadows, and many organizations have accelerated their focus on the issue. For example multiple partners, led by the International Stillbirth Alliance, have put together an advocacy and implementation guide for integrating stillbirth along the continuum of care including mental health,[17] and MOMENTUM Country and Global Leadership have created a new perinatal mental health community of practice. This has resulted in increased global and national guidance to integrate not only physical, but also perinatal mental health, into routine healthcare provision.[18] However, to date, neither this newly emerging evidence regarding the perinatal mental health consequences of stillbirth nor the potential interventions to mitigate these effects for affected women in LMICs have been summarized concisely. These are critical first steps towards including the specific needs of bereaved women into global and national guidance and training materials. This evidence summary seeks to close this gap and provide recommendations for next steps to improve mental health outcomes amongst women experiencing stillbirth in LMIC contexts.

METHODS

Aim

To provide a summary of the available evidence and research gaps regarding the impact of stillbirth on perinatal mental health in LMICs and to identify potential interventions to mitigate these where the burden is highest.

Specific Objectives

1. Identify and summarize the evidence on the impact of stillbirth on perinatal mental health in LMICs.
2. Describe what interventions have been implemented in LMICs to address the mental health needs of women who have experienced stillbirths and identify gaps in global guidance.
3. Suggest potential next steps for improving supportive care for women experiencing stillbirth in healthcare systems specifically in the highest burden regions (sub-Saharan Africa and South Asian countries), based on current evidence and gaps identified.

Methods by Objective

OBJECTIVE 1 – IDENTIFY AND SUMMARIZE THE EVIDENCE ON THE IMPACT OF STILLBIRTH ON PERINATAL MENTAL HEALTH IN LMICS

Researchers from The London School of Hygiene and Tropical Medicine, under the USAID-funded MOMENTUM Safe Surgery for Family Planning and Obstetrics project, undertook a literature review to identify available evidence of the impact of stillbirth on perinatal mental health in LMICs. We focused on common adverse peripartum mental health outcomes including depression, anxiety, and stress. Stillbirth was defined according to the definitions used by the authors, noting that the lower thresholds for defining stillbirth generally vary from 20 to 28 weeks gestational age (or equivalent birthweights). Studies focusing entirely on other adverse pregnancy outcomes including miscarriage, elective termination of pregnancy, or neonatal death (NND) were excluded. In view of the paucity of studies reporting results specifically for stillbirths, where it was not possible to isolate the stillbirth-specific findings from other related losses (e.g. miscarriages or early neonatal deaths [ENND]) the overall impact across all these losses was extracted.

To seek to capture all literature relevant to LMICs, we first undertook an umbrella review of systematic reviews examining the association between stillbirth and adverse perinatal mental health outcomes in any setting published since 2000. The EMBASE database was used, combining search terms for "stillbirth," "mental health," and "systematic reviews" (See Appendix A for details of search strategy). Searches were undertaken on July 13, 2023. All identified systematic reviews containing information on the association between stillbirth and adverse mental health outcomes in any setting were included. Next, we reviewed the full text and extracted information from all papers included in these reviews providing information on the association between stillbirth and adverse perinatal mental health outcomes in any LMIC.[†]

The reviews included in the umbrella review searched for evidence up to 2020. To ensure we captured any relevant studies published since then, we undertook a further literature review of studies published since January 1, 2020. For this we used three databases, EMBASE, MEDLINE, and Global Health, combining search terms for "stillbirth" and "mental health," with standard OVID LMIC search terms (see Appendix A). Any papers providing information relating to stillbirth and adverse perinatal mental health outcomes in LMICs were abstracted.

[†]Excluding high-income territories within middle-income countries such as Taiwan.

OBJECTIVE 2 – DESCRIBE WHAT INTERVENTIONS HAVE BEEN IMPLEMENTED IN LMICS TO ADDRESS THE PERINATAL MENTAL HEALTH NEEDS OF WOMEN WHO HAVE EXPERIENCED STILLBIRTHS AND IDENTIFY GAPS IN EXISTING GLOBAL GUIDANCE

A rapid review was undertaken to identify published and grey literature describing interventions implemented in LMICs to address the perinatal mental health needs of women who have experienced stillbirth.

First, we undertook a rapid review of published literature including relevant studies published since 2010 in three databases (Medline, EMBASE, and Global Health) (see Appendix B). Details of all studies identified with information relating to interventions to address the perinatal mental health needs of women who have experienced stillbirth in any LMIC were abstracted onto a Word template. We undertook a snowball search for each identified study by first searching the reference list of each identified study, and second, using the 'similar articles' and 'cited by' features of PubMed to locate other potentially relevant studies. The titles of all studies identified through these features were screened. Any relevant studies identified through these snowball steps were abstracted, and the snowball searching steps detailed above were undertaken. In addition, we reviewed clinical trial registries for any additional registered studies (https://www.isrctn.com/). The research team used the terms 'stillbirth,' 'perinatal,' 'bereavement,' 'support,' and 'mental health' to undertake searches of clinical trial registries. Where available, a .csv file of the results for each of the terms was downloaded and searched using all additional terms in turn. Information was extracted from journal articles reporting on studies of interventions aimed at improving perinatal mental health outcomes targeting women following stillbirths alone or targeting women following a wider range of pregnancy loss, such as miscarriages or ENND. In view of the paucity of data on existing interventions, and to provide more information to inform recommendations from this work, descriptive studies providing information on positive and negative factors associated with bereaved women's experiences of care were abstracted and summarized separately.

Next, the team searched WHO (https://www.who.int/publications/), UNICEF (https://www.unicef.org/reports), UNFPA (https://www.unfpa.org/publications), International Federation of Gynecology and Obstetrics (FIGO) (https://www.figo.org/resources), International Confederation of Midwives (ICM) (https://www.internationalmidwives.org/our-work/), and World Psychiatric Association (https://www.wpanet.org/) websites for existing global guidance on maternal health in general, and perinatal mental health in particular (August – October 2023, last search October 14, 2023). Identified documents were searched using the terms 'stillbirth,' 'still birth,' and '(fetal/intra-uterine/neonatal) AND (death/demise)' focusing on documents updated since 2018. Relevant stillbirth-specific information was abstracted onto a standard abstraction sheet. Any further relevant resources identified from the reference lists of identified documents were also abstracted.

Finally, a web-based search was undertaken to identify groups or organizations working specifically in the field of stillbirth in a LMIC or at global level. Google was used to search 'Global Stillbirth' and 'International Stillbirth' and the researchers reviewed the first 10 pages from each search on September 15, 2023 (Appendix B). The websites of all identified organizations were searched to identify any details of interventions, advocacy, or other activities around stillbirth and mental health.

OBJECTIVE 3 – POTENTIAL NEXT STEPS FOR IMPROVING SUPPORTIVE CARE FOR WOMEN EXPERIENCING STILLBIRTH IN HEALTHCARE SYSTEMS IN SUB-SAHARAN AFRICA AND SOUTH ASIAN COUNTRIES

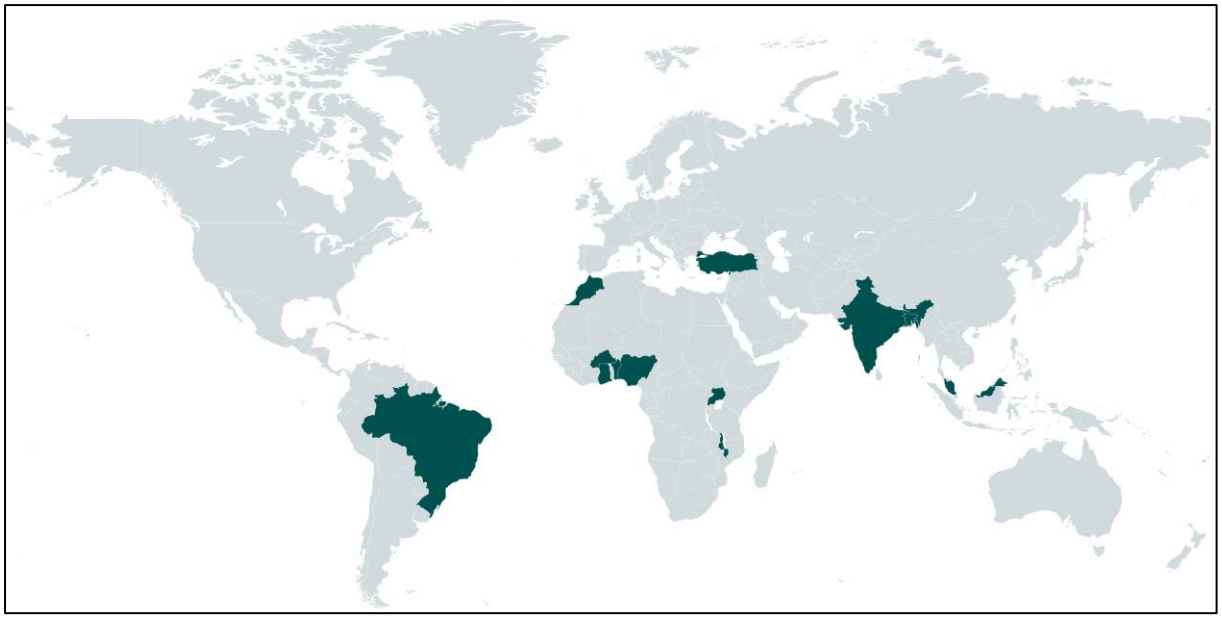
Recommendations to consider towards improving mental health outcomes for women affected by stillbirths in LMICs based on the findings of Objectives 1 and 2 were summarized, including evidence gaps where these were identified.

RESULTS

OBJECTIVE 1 – IDENTIFY AND SUMMARIZE THE EVIDENCE ON THE IMPACT OF STILLBIRTH ON PERINATAL MENTAL HEALTH IN LMICS

Nine hundred and twenty records (920) were screened on title, and 50 records assessed for eligibility. Five systematic reviews met inclusion criteria.[9,10,12,19,20] In addition, we located an unpublished MSc dissertation review relevant to the topic.[21] Eighteen studies that reported the association between stillbirth (alone or in combination with neonatal death) and perinatal mental health outcomes in LMICs were identified from the six systematic reviews and included in the umbrella review. An additional two studies located from the review of studies published since 2020 met the inclusion criteria (See Appendix A for details). Overall, 20 studies from 12 countries were included. Data in the included studies were collected from 2001 to 2021.

Figure 1: Geographical distribution of included studies



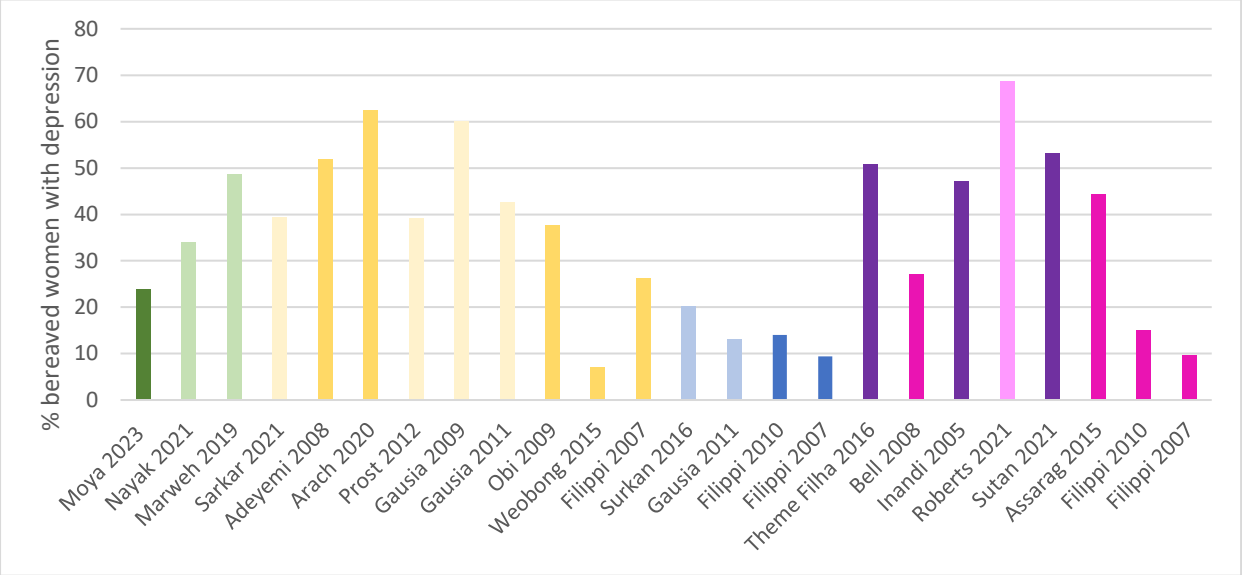
The definition cut off for stillbirth used in the studies varied from 20 to 28 weeks, with no definition specified in 10 studies. One study defined stillbirth as 28 weeks or more, but also included earlier spontaneous pregnancy losses (miscarriages) and elective terminations of pregnancy.[22] In six studies, early neonatal deaths (deaths 0 – 6 days after a livebirth) were also included, and it was not possible to abstract the stillbirth outcomes separately.[23-28] In one study all neonatal deaths (0 – <28 days after a livebirth) were included.[29]

Depression, anxiety, and stress were among the reported mental health outcomes. There was a high level of heterogeneity between studies in tools used to assess mental health and in the threshold definitions of adverse mental health outcomes: depression (18 studies; four tools; nine different thresholds); anxiety (three studies; three tools; three cut-offs); and stress (one study). The time since the occurrence of the stillbirth (or neonatal death) varied from 24 hours to 18 months (Appendix A).

DEPRESSION

Three studies assessed depression in the first week after stillbirth (Figure 2, green bars). Rates of depression varied from around a quarter (23.8%) to almost half (48.7%).[22,30,31] Nine studies assessed depression outcomes in the first three months after childbirth (yellow bars), four studies up to six months (blue bars), and eight studies up to 12 months of life (pink/purple bars) (Figure 2).

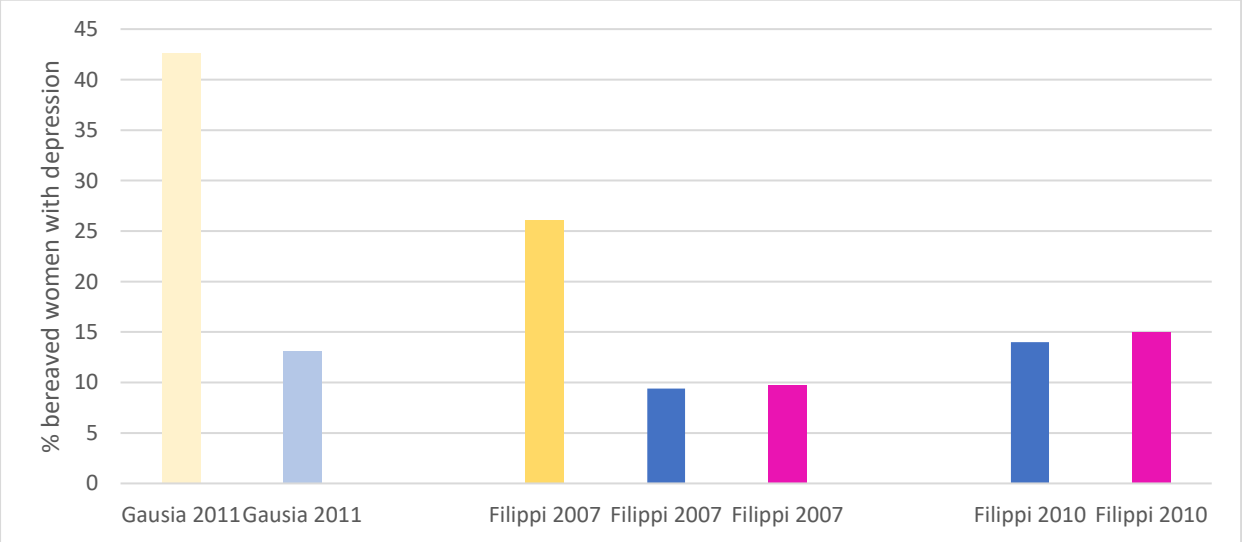
Figure 2: Prevalence of depression amongst bereaved mothers (%)



Time of assessment: Green= in first 7 days; Yellow= up to 3 months; Blue= up to 6 months; Pink/purple= up to 12 months. Studies from Africa region are shown in darker shades, Southern Asia in lighter shades. Studies from other regions are shown in purple.

Three studies assessed depression at more than one time point (Figure 3).[27,32,33] The prevalence of depression was substantially lower when assessed around six months compared to assessments at three months.[27,32] However, no difference was seen between six- and 12-months assessments, with around 10 to 15% of women having symptoms of depression at 12 months.[32,33]

Figure 3: Prevalence of depression amongst bereaved mothers over time (%)



Time of assessment: Yellow= up to 3 months; Blue= up to 6 months; Pink= up to 12 months. Studies from Africa region are shown in darker shades, Southern Asia in lighter shades. Studies from other regions are shown in purple.

Seventeen studies provided evidence on the risk of depressive symptoms in bereaved women (following stillbirth or other pregnancy loss) compared to women with a live birth, or infant surviving. In nine studies with information on risk up to three months after birth, bereaved women had 1.9 to 14.3 times the odds of reporting moderate to severe depressive symptoms compared to women with surviving children. In these studies, a similar level of effect was observed for those reporting crude or adjusted measures.

Table 1: Risk of depression within three months of stillbirth or perinatal death

STUDY	COUNTRY	TIME SINCE DELIVERY	DEPRESSION SCREENING TOOL	# OF BEREAVED WOMEN	# OF WOMEN WITH SURVIVING LIVEBIRTHS	# BEREAVED WOMEN WITH DEPRESSION	# OF WOMEN WITH SURVIVING LIVEBIRTHS WITH DEPRESSION	MEASURE OF EFFECT FOR INCREASED RISK OF DEPRESSION AFTER BEREAVEMENT (95%CI)
Moya 2023	Malawi^	24 - 72 hrs.	EPDS ≥9	21	611	5	16	aOR 14.3 (4.2 - 50.0)***
Adeyemi 2008	Nigeria^^	4 weeks	EPDS ≥9	54	54	28	12	OR 3.7 (1.5 - 9.6)
Sarkar 2021	India	2-6 weeks	EPDS ≥10	150	150	59	21	OR 4.0 (2.2-7.4)
Arach 2020	Uganda^^	50 days	EPDS≥14	77	1,712	48	329	aPR 3.5 (2.7-4.5)
Gausia 2011	Bangladesh ^^	6 weeks	EPDS ≥10	122	354	52	61	OR 3.6 (2.2 - 5.6)
Prost 2012	India^^^	6 weeks	K10 >15	456	5,801	179	490	aOR 7.1 (5.5 – 9.0)
Gausia 2009	Bangladesh ^^	6-8 weeks	EPDS ≥10	10	336	6	70	aOR 14.1 (2.5-78.0)
Obi 2009	Nigeria	4-12 weeks	ZDS >60*	69	133	26	8	OR 1.9 (1.8 – 2.5)
Weobong 2015	Ghana	4-12 weeks	PHQ-9**	254	12,779	18	408	aRR 1.9 (1.2-3.0)

All studies included stillbirths: also includes ^miscarriage, ^^ ENND, ^^^NND *Zung Self-Rating Depression Scale, **≥2 symptoms at least half the time in last 2 weeks; including depression +/or anhedonia, *** approx, re-calculated as presented with affected women as the baseline in the initial analysis. EPDS=Edinburgh Postnatal Depression Score. K10= Kessler Psychological Distress Scale. ZDS= Zung Self-Rating Depression Scale. PHQ9=Patient Health Questionnaire. OR=Odds Ratio, aOR=adjusted Odds Ratio, aPR= adjusted Prevalence Ratio, aRR= adjusted Relative Risk.

Eight studies reported on measures of increased risk of depression for bereaved women from three months after birth. One of these studies reported at multiple time points: three, six, and 12 months after experiencing stillbirth or perinatal death. Most of these studies found some evidence of increased risk of moderate to severe depressive symptoms in bereaved compared to non-bereaved women, although many studies were not adequately powered to provide conclusive evidence (Table 2). In view of the heterogeneity between studies (for example, due to different study designs and different measures of exposure and outcome), further meta-analyses were not undertaken.

Table 2: Risk of depression from three months following stillbirth or perinatal death

STUDY	COUNTRY	TIME SINCE DELIVERY	DEPRESSION SCREENING TOOL	# OF BEREAVED WOMEN	# OF WOMEN WITH SURVIVING LIVEBIRTHS	# BEREAVEED WOMEN WITH DEPRESSION	# OF WOMEN WITH SURVIVING LIVEBIRTHS WITH DEPRESSION	MEASURE OF EFFECT FOR INCREASED RISK OF DEPRESSION AFTER
Filippi 2007	Burkina Faso^^	3 months	K10 ≥14	69	655	18	63	aOR 3.39 (1.75-6.56)
Surkan 2016	Bangladesh	<6 months	≥3 on 5-item tool*	1,914	37,080	387	4,769	aOR 1.88 (1.66 - 2.13)
Gausia 2011	Bangladesh^^	6 months	EPDS ≥10	122	354	16	41	aOR 0.45 (0.20-1.03)
Filippi 2007	Burkina Faso^^	6 months	K10 ≥14	64	633	6	42	aOR 1.64 (0.63-4.29)
Assarag 2015	Morocco^^	8 months	EPDS ≥10	36	159	16	17	aOR 3.96 (0.95 - 16.41)**
Bell 2008	Burkina Faso	<12 months	K10 ≥14	431	13,035	118	2,359	aOR 1.65 (1.29-2.11)
Inandi 2005	Turkey	<12 months	EPDS ≥13	17	2,495	8	675	aOR 2.30 (0.88–6.00)
Filippi 2007	Burkina Faso^^	12 months	K10 ≥14	62	616	6	41	aOR 1.55 (0.55-4.37)
Filippi 2010	Benin^^	12 months	K10 ≥14	46	351	7	15	aRR 3.42 (1.3 - 9.01)
Theme Filha 2016	Brazil	6 - 18 months	EPDS≥13	96	23,893	49	6,260	aOR 2.04 (0.39-10.73)

All studies included stillbirths ^^ also includes ENND *Modified from PHQ-9 & CES-D, ** for women with stillbirth after uncomplicated pregnancy, aOR 4.7 (1.79 - 12.54) for women with stillbirth associated with maternal near-miss. EPDS=Edinburgh Postnatal Depression Score. K10= Kessler Psychological Distress Scale. PHQ9=Patient Health Questionnaire

Of note one small study that had reported a higher risk of depression amongst bereaved mothers at six weeks found some evidence of a lower risk of depression in bereaved mothers at six months (aOR 0.45; 95%CI: 0.20 – 1.03).[27] A further study from India interviewed women who had been pregnant within the last 12 months and had a previous stillbirth or infant death in any pregnancy and found that previously bereaved women had 23.1 (95%CI: 11.1 – 51.2) the odds of reporting depressive symptoms compared to women without a history of loss.[34]

ANXIETY

Three studies reported an association between stillbirth and anxiety.[23,34,35] Prevalence of anxiety varied from 28.6 – 53.3%. Bereaved women had more than twice the risk of reporting anxiety compared to women with surviving liveborn children (Table 3).

Table 3: Prevalence of anxiety after stillbirth or perinatal death

STUDY	COUNTRY	TIME SINCE DELIVERY	ANXIETY SCREENING TOOL	# OF BEREAVED WOMEN	# OF WOMEN WITH SURVIVING LIVEBIRTHS	# BEREAVEED WOMEN WITH DEPRESSION	# OF WOMEN WITH SURVIVING LIVEBIRTHS WITH DEPRESSION	MEASURE OF EFFECT FOR INCREASED RISK OF DEPRESSION AFTER BEREAVEMENT (95%)
Adeyemi 2008	Nigeria^^	3 weeks	Hospital anxiety and depression score (HADS ≥8)	54	54	23	14	OR 2.11 (0.87 - 5.22)
Sarkar 2021	India	2-6 weeks	Anxiety was assessed by generalized anxiety disorder (GAD-7 ≥5)	150	150	80	44	OR 2.74 (1.67-4.56)
Roberts 2021	India	NA*	The Hopkins Symptoms Check List – 10 (mean ≥1.65)	105	155	30	22	OR 2.37 (1.27 - 4.66)

All studies include stillbirth ^^ also includes ENND *women interviewed had been pregnant within the last 12 months but reported on 'all stillbirths or infant deaths,' including in previous pregnancies.

STRESS

A single study from India reported on the impact of stillbirth on women's reported stress levels, measured using perceived stress scale.[35] Over half (54%) of the bereaved women reported stress at two to six weeks after stillbirth, over five times the risk of stress compared to women with a livebirth (OR 5.89 [2.97 – 12.45]). No studies included information on post-traumatic stress disorder.

IMPACT ON FATHERS

Sarkar et al. also reported on the mental health impact of stillbirth on fathers. They found 18% of bereaved fathers reporting symptoms of depression at two to six weeks post-stillbirth, 44% reporting anxiety symptoms, and 22.7% reporting symptoms of stress compared to 6.7%, 19.3%, and 7.3% respectively for husbands with live-born children (OR 3.06 [1.37 - 7.39], 3.27 [1.90 - 5.72], and 3.69 [1.73 - 8.44] respectively).[35] The remaining studies included did not consider the impact on fathers. A systematic review on the impact on fathers could be an important area for further study but was outside the scope of this work.

OTHER RELEVANT FINDINGS

A further study from Northern India found that grief scales six to nine months after experiencing stillbirth or child death were higher for women whose children were stillborn compared to those whose children had died in the neonatal period or early childhood.[36] This may be in part due to the unexpected nature of the loss, lack of societal recognition of stillbirth, and subsequent lack of social support following the loss.

OBJECTIVE 2 – INTERVENTIONS TO ADDRESS THE MENTAL HEALTH NEEDS OF WOMEN WHO HAVE EXPERIENCED STILLBIRTHS IN LMICS

RAPID REVIEW

1. Studies of interventions to improve the perinatal mental health outcomes of women in LMICs

Six hundred eighty-one (681) titles and abstracts were screened. No previously published systematic reviews of interventions to improve the perinatal mental health outcomes of women experiencing stillbirth in LMICs were identified. A protocol for a systematic review of the effectiveness of psychotherapeutic interventions on psychological distress in women who have experienced perinatal loss

(defined as miscarriage, stillbirth, or neonatal death) was identified.[37] The review has not set any geographical limits; however, as with previous reviews, it is likely that the majority of the studies will be from high-income settings.

The team reviewed seven full text papers from individual studies. Three studies provided information on interventions specifically designed to improve mental health outcomes in women following stillbirth; a further study was identified through screening the reference list of included studies. Three studies, one from India and two from Iran, found some evidence of improved psychological outcomes with mindfulness, individual, and small-group counseling respectively.[38-41] However, all were small studies and were of low quality (Table 4 and Appendix C). The final study was a protocol for a bereavement intervention in Brazil, however the results of this study are not yet available.[42]

Details of two further studies were identified through the searches of clinical trial registries. One study in Kenya and Uganda[43] has completed recruitment and publication of results are expected soon. Recruitment for the other study in India and Pakistan[44] is currently underway (Table 4).

Table 4: Summary of studies of interventions to improve mental health outcomes for women experiencing stillbirth in LMICs

STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
Roberts et al[40,41]	India (Rural Chhattisgarh)	22 women affected by stillbirth in the previous 12 months	**Pre-post intervention** Intervention: Two-sessions mindfulness-based Participants pre-intervention, at 6 weeks, and 12 months post-intervention	At 6 weeks (n=6): Some evidence of a decrease in Hopkins Symptoms Check List-10 (HSCL-10) (p=0.057); evidence of change in the five facets of mindfulness, no change in the other scales[40] At 12-months: Evidence of reductions in perinatal grief and psychological symptoms[41] * Limitations: Sample size very small
Haghighi 2022[38]	Iran Shahid Motahari Teaching Hospital (Urmia)	100 women with pregnancy loss+	**Randomized controlled study** Intervention: Four individual counseling sessions from a midwifery consultant trained by a psychiatrist Control group: Routine care (not specified)	Depression Anxiety Stress Scale-42 (DASS-42) scores were similar between groups at baseline (p>0.5) At endline (1-month after final counseling session), depression, anxiety, stress, and overall DASS-42 scores lower in the intervention group (p<0.001) Limitations: Only 25% of women had experienced stillbirth. Analysis not on intention to treat.
Navidian 2017[39]	Iran Central Maternity Hospital, University of Medical	100 women with stillbirth ≥22	**Randomized controlled study** Intervention: Four sessions of small-group psychological counseling over two weeks	Mean total grief symptom score and three subscale scores significantly lower in the participants who received psychological counseling (p < 0.05). Limitations: Analysis not on intention to treat.

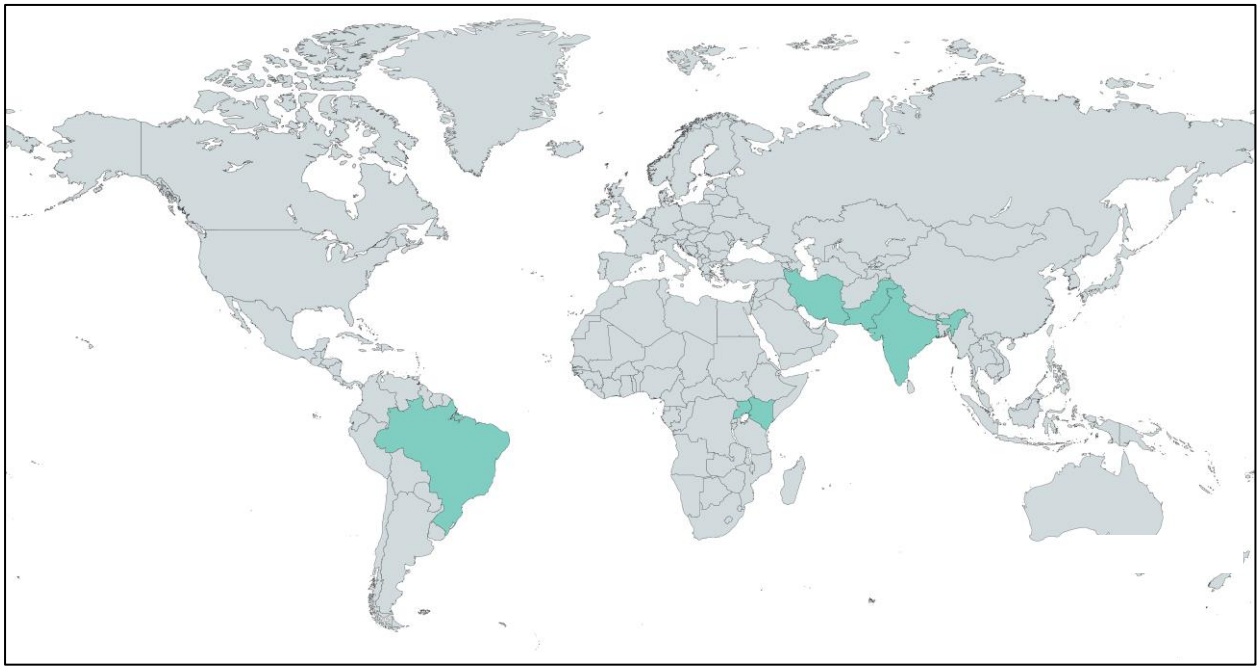
STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
	Sciences, Zahedan		Control group: Routine postnatal care (not specified)	
Salgado et al[42]	Brazil São Paulo State	Women experiencing stillbirth (≥20 weeks and ≥500g) or neonatal death (up to 28 days) in one of the four public maternity wards in Ribeirão Preto City	**Protocol for a pre-post intervention** Population: The first 20 women consenting in each of the pre- and post- period will be interviewed including Perinatal Grief Scale and Edinburgh Postpartum Depression Scale.	Study protocol published. No results available.^
Mills[43]	Uganda and Kenya (Two maternity units: Kenyatta National Hospital Nairobi, Naguru Hospital Kampala)	Up to 30 women and 15 partners 6-8 weeks after the birth and 15 health workers per country to assess acceptability Women only: EPDS and Perinatal Grief Scales	**Protocol for 'Before and After'** study to examine acceptability and feasibility of a new package of care to improve support for parents after stillbirth or neonatal death. To assess feasibility of scale-up across Eastern Africa with Lugina African Midwives Research Network (http://lamrn.org/).	Includes both immediate care in facilities and postnatal support. 1. Perinatal Bereavement Care Group meeting every 4-6 weeks, comprising bereavement care champions, and two health workers from each area (labor, postnatal ward, antenatal clinic, neonatal unit), who currently provide care to bereaved families and service managers. Group members offered additional training on parents' needs and behavior change techniques to support better practice. 2. A community peer support network, supported by Perinatal Bereavement Care Group. 4-6 volunteer peer supporters^^ trained by research team. Offer telephone peer support from two weeks post discharge. Link to Perinatal Bereavement Care Group for support, debriefing, advice, and referrals. Data collection completed. Results awaited.
Mills[44]	India, Pakistan (Two hospitals, Bangalore Medical College and	30 women with stillbirth or ENND in each phase (pre- and post-intervention) follow-up at 6-8 weeks	**Protocol for a pre- and post- cohort,** over 14 months, to assess the acceptability and feasibility in these contexts prior to a full-	Intervention to be co-designed from title, although methods not specified; study hypothesis and design suggest development/adaptation with main aim 'To explore the acceptability, implementation, recruitment, and retention of women offered the

STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
	Liquat University of Medical and Health Sciences)	(qualitative and EPDS and Perinatal Grief Scales)	scale effectiveness evaluation.	intervention in India and Pakistan settings.'

* Unable to access full text. ⁺ 25 stillbirth, 25 neonatal death, 31 abortion (miscarriage), 14 ectopic pregnancy, five molar pregnancy ^Personal communication with authors. ^^ Criteria include women with previous experience of stillbirth or neonatal death, at least 12 months ago with no severe mental health issues. Study delayed by COVID-19-related funding cuts and resuming in 2024 with an updated protocol.

The geographical distribution of the identified studies on interventions for stillbirth bereavement is shown in Figure 4 below.

Figure 4: Intervention studies for stillbirth supportive care: geographical distribution



2. Further evidence to inform interventions to improve the mental health outcomes of women in LMICs; Examples of 'best practice'

The communication received at the diagnosis of fetal death or stillbirth and early supportive care have been shown to be protective against later adverse mental health outcomes for women, especially when coupled with an ongoing supportive environment from health workers, partners, friends, and family. These findings are similar to those around communication of fetal loss in the MOMENTUM Safe Surgery in Family Planning and Obstetrics work on counseling, informed consent and debriefing (CCD) for caesarean section work. Whilst few studies provided an evidence base for interventions to improve the mental health outcomes for women affected by stillbirth in LMICs, a number of studies did present proposed 'best practices' which included supportive care. In many of these cases, evidence from HICs was frequently used as a starting point, but recognized that interventions designed for HICs may not be relevant to LMICs.[45,46]

The RESPECT (Research of Evidence based Stillbirth care Principles to Establish global Consensus on respectful Treatment) study set out to establish a global consensus for stillbirth bereavement care.[46] A core set of eight evidence-based principles were developed in consultation with frontline care providers

from a diverse range of contexts and settings. Whilst this represented an important first step, the work has several limitations including a predominantly HIC evidence base, no linkage to global standard-setting organizations such as UN bodies or professional organizations, and the inclusion of only a few parents or respondents from Latin America, Africa, Asia, or the Middle East. These principles have been included in a number of further publications captured in this review including: the Preventing and Addressing Stillbirths Along the Continuum of Care: A Global Advocacy and implementation guide,[17] which contains a section on communication with parents; the Continuous Textbook of Women's Medicine series, which contains a recent 'practical guide for care of bereaved parents after a stillbirth' that seeks to integrate evidence from both high- and low-income settings;[47] a best practice review;[48] advocacy toolkits;[49,50] and UN reports.[5,17]

Box 1: Principles for Global Bereavement Care after stillbirth from RESPECT study[a]

1. Reduce stigma experienced by bereaved women and families by increasing awareness of stillbirth within communities.

2. Provide respectful maternity care to bereaved women, their families, and their babies.

3. Support women and families to make shared, informed, and supported decisions about birth options.

4. Make every effort to investigate and identify contributory factors to provide an acceptable explanation to women and families for the death of their baby.

5. Acknowledge the depth and variety of normal grief responses associated with stillbirth and offer appropriate emotional support in a supportive environment.

6. Offer appropriate information and postnatal care to address physical, practical, and psychological needs, including a point of contact for ongoing support.

7. Provide information for women and their families about future pregnancy planning and reproductive health at appropriate time points throughout their care and follow-up.

8. Enable the highest quality bereavement care by providing comprehensive and ongoing training and support to all members of the healthcare team.

[a] Shakespeare, C., et al. (2020). "The RESPECT Study for consensus on global bereavement care after stillbirth." *Int J Gynaecol Obstet,* 149(2): 137-147.

3. *Summary of positive and negative factors impacting bereaved women's experience of care*

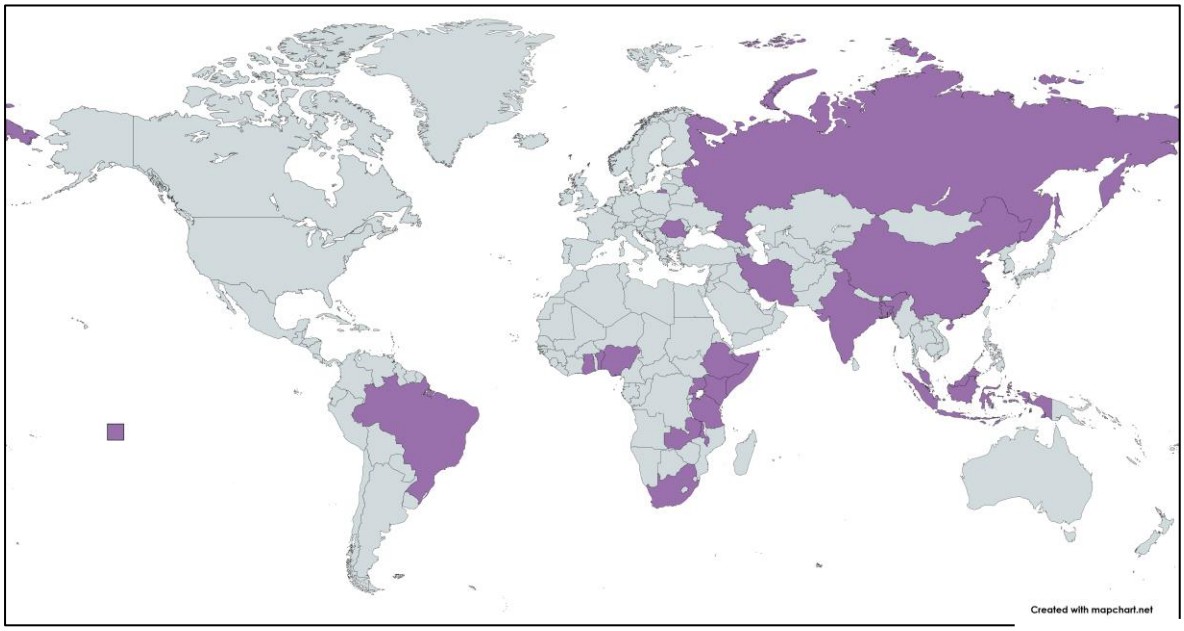
Additionally, several recent studies reporting on the experience of stillbirth in LMICs have included information regarding positive and negative factors associated with the immediate care that women received following stillbirth. Findings from two systematic reviews, and nine other recent studies, showed that women from a wide range of geographies (Figure 5) reported similar negative and positive care factors perceived to impact subsequent psychological and mental health outcomes (Table 5; see Appendix D for full details).

Table 5: Summary of positive and negative aspects of care around stillbirth reported by women in LMICs

	NEGATIVE ASPECTS OF CARE AROUND STILLBIRTH	POSITIVE ASPECTS, EXPERIENCED OR DESIRED TO IMPROVE WELL-BEING AFTER STILLBIRTH
Breaking bad news	Overhearing news from others[51,52]	Communicating truthfully, clearly, and compassionately with mother in her own language in a private space* that the baby has died (checking understanding) [11,51,53]
Ongoing communication	Suboptimal communication: feeling of being ignored.[11,52-55] Suboptimal communication: insensitivity,[11,54-56] rudeness,[56] unapproachability,[53,55,56] inadequate tone.[51] Perceptions of staff not caring/lack of empathy.[51,53,56]	Offer to communicate to family members afterwards if woman desires.[51] Empathetic communication, sensitive to the women and family's needs and preferences.[11,51,52] Verbal encouragement/comfort.[52,56] Encourage questions.[51]
Communicating cause of death	Lack of information on cause of death (women left to construct their own explanation; enforces cultural misbeliefs around supernatural causes of stillbirth).[36,54,56,57] Attributing death to a higher power "God's will" may not be appreciated by all.[57]	Accurate information on cause of death,[11,52] including death certificate.[52]
Involvement in management decisions	Paternalistic decision making on behalf of the patient, defensive behaviors (to avoid blame).[54]	Opportunity to discuss management options for delivery and postnatal care,[11,54] including opportunity to see and hold baby if desired;[55-57] decisions around sedation[55] and options for burial/respectful disposal of the baby's remains.[55]
Meeting women's physical needs	Perceptions of 'de-prioritizing' women for clinical care after baby has died.[51]	Optimal management of physical condition, both around the time of childbirth including appropriate analgesia and ongoing postpartum care.[11,52]
Place of care	Caring for women on general postnatal ward alongside women with liveborn babies.[11,51,53-56,58]	Provision of option for care separated from women with live births.[11,51,53-56,58]
Companionship	Negative comments from insensitive relatives.[54,58]	Provision for presence of family if desired throughout care.[11,52-54,57]
Respectful care of stillborn baby	Disrespectful treatment of stillborn baby.[55]	Respectful handling of the stillborn baby.[55]
Care for next pregnancy	Failure to recognize previous loss and women's perceptions around importance of fertility.[11]	Care for next pregnancy tailored to address women's needs, and cause of previous stillbirth.[11]

The geographical distribution of the studies contributing to the knowledge summary above on positive and negative factors associated with early supportive care is shown in Figure 5.

Figure 5: Studies of experiences of stillbirth care: geographic distribution



DOCUMENT REVIEW

Despite women experiencing stillbirth being highlighted as a group with unique mental health care needs since UN agencies started to focus on perinatal mental health in LMICs,[59] our review of the websites of key UN and professional organizations revealed gaps in current global guidance and a lack of visibility around the issue of mental health following stillbirth. Seventeen documents relating to general maternal health or perinatal mental health which could have been expected to contain information relevant to the mental health of bereaved mothers were identified and included in the review (see Appendix E). Only two documents actually discussed specific needs of bereaved women following stillbirth, potential interventions or guidance for health professionals caring for such women, and in these, it was generally at high-level.[5,17] Of note, no information was provided in key WHO global guidance on intrapartum and post-partum care.[60-63] Even when guidance was provided for caregivers, no evidence was provided to support its effectiveness.[64] In the one occasion where the user was signposted to a training material, the linked resource was from the Association of American Medical Colleges.[65] The appropriateness of this training material to a global context is unclear. Even within the WHO Quality of Care Network, and despite the commitment to reduce maternal and newborn deaths and stillbirths in participating health facilities by 50% over five years, and to improve user satisfaction with the care received, no information related to experience of care, or communication around stillbirth or mental health were mentioned in any of the documentation.[66,67]

Maternal and perinatal death surveillance and response provides another potential place where the importance of establishing probable cause of death for stillbirth to reduce stigma and blame can be addressed. However, this is lacking from current documentation.[68] Midwives play a critical role in providing counseling and follow-up care for women and family members who experience stillbirth, and these skills are included in global core competencies for midwifery practice;[69] yet, there remains a disconnect between this key competency and midwifery curricula.[70,71]

Although respectful maternal care (RMC) is likely to be even more important for women following stillbirth, stillbirths were not mentioned in available RMC documents, and the current available guidance for supportive care is limited,[72,73] especially for LMIC contexts.[1]

A primary review of the current evidence base for interventions to improve perinatal mental health outcomes in the general population was not undertaken. However, all such interventions included in a recent landscape review were examined, and as yet, the current evidence-based interventions in this area do not include stillbirths.[1,74]

SPECIFIC ORGANIZATIONS

Three organizations working in at least one LMIC setting were identified from the initial Google search (Appendix F): the International Stillbirth Alliance (https://www.stillbirthalliance.org/), Lugina African Midwives Research Network (http://lamrn.org/), and the NIHR Global Health Research Unit on the Prevention and Management of Stillbirth. All of these had been identified by experts in the concept note for this report. A detailed search of the websites of these organizations located two further potentially relevant documents not included in earlier parts of the review. These comprise two 'Parent Voices Advocacy Toolkits' produced by the International Stillbirth Alliance.[49,50] Of relevance to this objective, the Kenya version included practical advice around advocating for mental health services,[49] whilst the provider version provided practical advice on 'What is your role in providing stillbirth care?' and 'when to refer to a mental health care provider'(see Appendix F).[50]

In addition, targeted searches of websites of stillbirth, pregnancy loss, and neonatal death bereavement organizations in HICs were undertaken to look for evidence of activities or collaborations in LMICs (see Appendix F). However, no further new information was located.

OBJECTIVE 3 – POTENTIAL NEXT STEPS FOR IMPROVING SUPPORTIVE CARE FOR WOMEN EXPERIENCING STILLBIRTH IN HEALTHCARE SYSTEMS IN SUB-SAHARAN AFRICA AND SOUTH ASIAN COUNTRIES

Overall, the findings of this review have highlighted the large burden of psychological distress and adverse mental health outcomes amongst women whose babies are stillborn. Across 20 studies from a wide range of LMICs, an average (median) of 41% of women had evidence of depression in the year after stillbirth. There were an estimated 1.5 million stillbirths in sub-Saharan Africa and Southern Asia in 2021,[3] equating to around 615,000 women with depression following stillbirth with specific needs for support. This number, however, underestimates the true burden as the global stillbirth estimates include only late gestation stillbirths (from 28 weeks of pregnancy) missing the burden from early gestation fetal deaths (22 to 27 weeks of pregnancy). Whilst stillbirth rates are declining globally, the pace of progress varies greatly. Estimates show a significant decrease in Southern Asia, with rates dropping from 32.1 per 1,000 births (1.3 million stillbirths) in 2000 to 16.7 per 1,000 births (611,000 stillbirths) in 2021. However, sub-Saharan Africa has a very different pattern. While the rate there has also decreased, it is at a much slower pace, reducing from 28.2 per 1,000 births (805,000 stillbirths) in 2000 to 21.0 per 1,000 births (847,000 stillbirths) in 2021. Disturbingly, the number of stillbirths in sub-Saharan Africa increased by over 40,000 between 2000 and 2021 due to population growth.

> Around 615,000 women in sub-Saharan Africa and South Asia experience depression following stillbirth each year.

In addition, evidence from this review suggests that women experience similar adverse perinatal mental health outcomes following early neonatal death. With around 1.4 million early neonatal deaths each year in sub-Saharan Africa and Southern Asia, the total number of women experiencing depression following perinatal loss (stillbirth and ENND combined) in this region is likely to exceed 1.2 million.

Overall, around half of stillbirths in both Southern Asia and sub-Saharan Africa occur during labor (intrapartum stillbirths). The majority of these, and many antepartum stillbirths, are preventable with timely, equitable access to high-quality care along the continuum from antenatal through intrapartum

care.[6] Improving access to care, and delivering high-quality care to prevent stillbirths from occurring, must be the first step to reducing the burden on mental health associated with stillbirth in sub-Saharan Africa and Southern Asia. However, this must be coupled with action to improve the supportive care that women receive following a stillbirth. This review found that bereaved women had at least twice the risk of depression in the three months after stillbirth or early neonatal death compared to women with a live born surviving baby, with two studies reporting up to 14 times the risk. Whilst the risk of depression was highest in the first few months, most studies found some evidence of an increased risk up to 12 months after birth.

Large gaps exist in the evidence for effective strategies to reduce the psychological and mental health impacts of stillbirth in LMICs.

Despite the increased risk of adverse mental health effects associated with stillbirth, very little evidence of effective strategies to mitigate this risk were found. Only three very small studies testing the effectiveness of interventions specifically to improve psychological and mental health outcomes in women with stillbirth were identified. These used mindfulness, individual, or small group counseling. In addition, three studies are underway testing the feasibility and acceptability of more complete 'perinatal bereavement' packages for care following both stillbirth and early neonatal death, including staff-focused and women-focused components. The majority of these studies are quasi-experimental, and whilst all include measures of psychological outcomes, such as grief or depression symptom scores, most included very short periods of follow-up (6 to 8 weeks), and few have power to detect statistical difference in outcomes.

Many countries use global guidance from UN agencies and professional organizations to inform national policies and clinical protocols. Therefore, the absence of specific guidance in most relevant global-level documents is likely to also be reflected in national guidance and training. This gap may explain the very poor levels of supportive care received by women in LMICs in the evidence reviewed. In addition, whilst some global documents included guidance on proposed best practice, there is a paucity of evidence on optimal supportive care after a stillbirth in LMIC contexts, and how this care can best be delivered. In recent years, some HICs have started to formalize bereavement care pathways.[14,16,75,76] These provide a standard evidence-based approach to support the provision of culturally appropriate care, recognizing the specific needs of minority and marginalized groups while ensuring that all parents are given choices towards improving the experience that they and their families face at this difficult time. Introduction of bereavement care standards or pathways can be a useful tool to standardize care. However, these should be accompanied by evaluation of their use and impact on both healthcare providers and parents.

There are several limitations of this rapid review. First, the rapid searches were undertaken in English only, and therefore may have missed programs or research published in other languages. In addition, we only reviewed systematic reviews and the papers included in them. It is possible that we overlooked other relevant papers that were missed in the systematic reviews. Although additional searches were undertaken in a range of databases that may better represent published data from LMICs, future efforts should include a range of languages including French, Spanish, and Portuguese, and a wider range of databases.

Based on the rapid review of the literature, a few other key aspects have emerged to take into consideration when designing interventions. This work has focused on summarizing the impact of stillbirth on women; the next step would be to also summarize the current evidence base for the impact of stillbirth on fathers, partners, and other close family members in LMIC contexts. Several studies from HIC settings have demonstrated the important impact that stillbirth has on fathers.[77,81] There is also growing evidence of the impact of stillbirth on fathers in LMIC settings that would be important to collate

to inform interventions.[35,36] Similar to other maternal-newborn health interventions, provision should be made to include men in the design of interventions to improve supportive care after stillbirth.[82,83]

Supportive care is not limited to the immediate facility-based care around the time of birth and must commence from the moment of communicating the news that the baby has died. Whilst the summary of positive and negative aspects of care around stillbirths presented in Objective 2 focused on immediate communication and care, optimal supportive care will continue beyond discharge into the community. For stillbirths occurring outside health facilities, the community may be the sole source of supportive care. In Eastern Africa, whilst kinship and social support can be important factors helping parents to cope following stillbirth, women also faced a conflict between addressing their own needs and complying with community norms and expectations such as providing the husband with a live, healthy offspring through conceiving again rapidly following a stillbirth.[57]

Stigma is a major theme identified in all settings of experience of stillbirth globally and can be an exacerbator of psychological distress. This includes studies across a range of countries in sub-Saharan Africa and South or South-Eastern Asia.[57,58,84-90] In high-income settings there has been gradual but widespread sociocultural change surrounding perceptions of stillbirth. Stillbirth, especially when stigmatized or associated with blame, is associated with relationship breakdown, divorce, emotional and verbal abuse from partners, family members, and co-wives, and stigmatization from the community.[88, 91-96] All of these further negatively impact women's psychological and mental health after stillbirth, and could be addressed at a community level through existing structures such as through community health workers, community leaders, or faith-based communities, for example.

In a study from India, the risk for severe grief following stillbirth or early neonatal death depended on position in the household, availability of social support, and endorsement of social norms, with important differences noted between women living in rural areas of Chhattisgarh, where grief was higher and more affected by societal pressures and isolation, compared to urban slums in Mumbai.[97] This highlights the importance of context-specific tailoring of future interventions. Similarly, context-specific adaptations have been shown to be important for overall perinatal mental health interventions such as the Thinking Healthy Progam.[98] Culturally sensitive community programs to demystify stillbirths and provide an enabling environment for women to grieve in their own way could be an important step to improve resilience and outcomes amongst bereaved women.[57]

NEXT STEPS

Care for women and families

This review has identified a large gap in current evidence for and provision of supportive care for women following stillbirth in LMICs, and gaps in the measurement of adverse psychological outcomes especially around post-traumatic stress. A next step towards closing this gap could be to use the currently available and growing information on experience and needs of affected women across a range of LMIC geographies to review and update the previously published global principles for bereavement care after a stillbirth, based on principles of respectful care.[46] Efforts should be extended to include guidance on supportive care following a neonatal death, although further work is needed to systematically collate relevant evidence of experiences and needs for women in LMICs, especially for those whose babies have been cared for as inpatients on a neonatal unit.

Work is needed to develop practical global guidance on how to improve provision and experience of care after stillbirth or early neonatal death, but which can be adapted to specific contexts. This guidance should be co-designed with bereaved parents, frontline health workers, global experts and researchers, WHO, and other key stakeholders building on the existing evidence base summarized in Objective 2, evidence from HIC settings, and include learnings from the planned scale-up of the Kenya/Ugandan intervention as they emerge.[43] It should also take into account the appropriateness and feasibility of

potential delivery mechanisms and learn from what has worked in LMICs for other mental health interventions including peer-to-peer support,[99] women's groups,[100] and digital health interventions.[101] To effect change, this knowledge and learning should be integrated into existing and new global guidance from UN agencies (WHO, UNFPA, UNICEF), international professional organizations (FIGO, ICM, Council of International Neonatal Nursing), and others.

There is a need to strengthen postpartum care follow-up for women post stillbirth, with active follow-up where possible to detect and manage any ongoing physical or psychological complications. Learnings from tailored supportive bereavement care packages for women in LMICs should be integrated into routine postpartum care and perinatal mental health care services and trainings, so that where bereaved women develop mental health symptoms these can be rapidly detected and services equipped to tailor care to their specific individual needs. A systematic review of interventions that integrate perinatal mental health care into routine maternal care in LMICs included 20 studies from eight LMICs. The studies used a wide range of psychological, psychosocial, and pharmacological interventions. In 18 studies (90%) a reduction in depression and/or anxiety in the intervention group was demonstrated. None of these studies included a focus on women with pregnancy loss.[102]

Finally, evidence from a wide variety of settings have shown that previous pregnancy loss is both a risk factor for future pregnancy loss and can negatively affect a woman's mental health in her subsequent pregnancy.[103,104] Few studies from LMICs have addressed this key area to date, and comparability of findings from all studies are limited by lack of standard outcome definitions.[105,106] However, as all evidence to date supports the importance of care in subsequent pregnancies, trainings and interventions towards ending preventable stillbirths and improving care for every woman and her baby should also include the importance of support and early identification and management of symptoms as part of care during the next pregnancy.[9] To achieve this will require ensuring that every woman is asked in a sensitive manner about previous pregnancy loss at booking and that this information is used to inform maternity care – incorporating new best practice guidelines for care in subsequent pregnancies as it emerges.

Support for healthcare providers

This review focuses on the perinatal mental health needs for bereaved women affected by stillbirth or neonatal death and potential interventions to improve perinatal mental health outcomes. However, many of the potential interventions, and positive resilience factors improving these outcomes in bereaved women, are delivered by frontline healthcare providers. These providers are the first point of contact for women from the moment of diagnosis of fetal demise, and as a cadre will provide ongoing care through delivery, post-partum, and potentially into subsequent pregnancies. It is hence critical to involve providers in any interventions to improve psychological and mental health outcomes in bereaved mothers. Whilst outside the main scope of this report, stillbirths have a large impact on healthcare providers, who often feel unprepared for this emotional and challenging experience.[107,108] Without a supportive environment for healthcare providers, it will not be possible to optimize women's experience of care, especially where providers feel blamed and powerless to effect change, including in light of health system barriers to provision of high-quality antenatal and intrapartum care, and care following stillbirth. Two of the intervention packages currently being tested involve components of healthcare provider education and support.[43,44] This is an important first step, but will require developing and testing in a wider range of settings, as well as adequate financing and support from healthcare managers to ensure sufficient resources both in terms of physical space and health worker time.

CONCLUSIONS

Whilst gaps remain for supportive care of women experiencing stillbirth in LMIC settings, this work has identified key opportunities to close evidence gaps and offers suggestions for use of existing and emerging evidence together with examples of best practice to improve provision of supportive care for bereaved mothers. Whilst these are short- to medium-term opportunities, sufficient evidence exists now

to implement changes, for example through increasing stillbirth awareness and communication training throughout communities of healthcare providers and increasing societal awareness and understanding about stillbirths in every country. This should ultimately lead towards improved mental health and well-being amongst bereaved mothers everywhere.

REFERENCES

1. McNab, Shanon, Dryer S, Gomez P, Bhatti A, Khadka N, Kenyi E. (2021). *The silent burden: Common perinatal mental disorders in low- and middle-income countries*. USAID MOMENTUM. https://usaidmomentum.org/app/uploads/2021/09/GECO-357_MCGL-CMPD-Landscape-Analysis_12-21-2021_Sec.508comp_v1.pdf

2. Bhatti A., McNab, S., Simon, C. (2023). *Silent burden: Exploring the link between adolescent sexual and reproductive health and perinatal mental health in low- and middle-income countries*. MOMENTUM Country and Global Leadership. https://usaidmomentum.org/resource/silent-burden-exploring-the-link-between-adolescent-sexual-and-reproductive-health-and-perinatal-mental-health-in-low-and-middle-income-countries/

3. United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME). (2022). Child mortality, stillbirth, and causes of death estimates. https://childmortality.org

4. World Health Organization (WHO). (2014). *Every newborn action plan*. WHO. https://www.who.int/initiatives/every-newborn-action-plan#:~:text=The%20global%20Every%20Newborn%20Action,reducing%20maternal%20mortality%20and%20morbidity

5. UN IGME. (2020). *A neglected tragedy: The global burden of stillbirths*. United Nations Children's Fund:. https://www.unicef.org/reports/neglected-tragedy-global-burden-of-stillbirths-2020

6. UN IGME. (2023). *Never forgotten: The situation of stillbirth around the globe.* United Nations Children's Fund. https://data.unicef.org/resources/never-forgotten-stillbirth-estimates-report/

7. WHO, UNICEF, United Nations Population Fund (UNFPA). (2023). *Improving maternal and newborn health and survival and reducing stillbirth - Progress report 2023*. https://www.who.int/publications/i/item/9789240073678

8. Heazell, A. E. P., Siassakos, D., Blencowe, H., et al. (2016). Stillbirths: Economic and psychosocial consequences. *Lancet*, 387(10018), 604-16. https://doi.org/10.1016/S0140-6736(15)00836-3

9. Burden, C., Bradley, S., Storey, C., et al. (2016). From grief, guilt pain and stigma to hope and pride - a systematic review and meta-analysis of mixed-method research of the psychosocial impact of stillbirth. *BMC Pregnancy and Childbirth*, 16, 9. https://doi.org/10.1186/s12884-016-0800-8

10. Herbert, D., Young, K., Pietrusińska, M., MacBeth, A. (2022). The mental health impact of perinatal loss: A systematic review and meta-analysis. *Journal of Affective Disorders*, 297, 118-29. https://www.sciencedirect.com/science/article/abs/pii/S0165032721011009

11. Shakespeare, C., Merriel, A., Bakhbakhi, D., et al. (2019). Parents' and healthcare professionals' experiences of care after stillbirth in low- and middle-income countries: A systematic review and meta-summary. *BJOG: An International Journal of Obstetrics & Gynaecology*, 126(1), 12-21. https://doi.org/10.1111/1471-0528.15430

12. Westby, C. L., Erlandsen, A. R., Nilsen, S. A., Visted, E., Thimm, J. C. (2021). Depression, anxiety, PTSD, and OCD after stillbirth: A systematic review. *BMC Pregnancy and Childbirth*, 21, 782. https://doi.org/10.1186/s12884-021-04254-x

13. Bakhbakhi, D., Burden, C., Storey, C., Siassakos, D. (2017). Care following stillbirth in high-resource settings: Latest evidence, guidelines, and best practice points. S*eminars in Fetal & Neonatal Medicine*, 22(3), 161-66. https://doi.org/10.1016/j.siny.2017.02.008

14. Health Service Executive, Ireland. (2022). *National standards for bereavement care following pregnancy loss and perinatal death*. https://www.hse.ie/eng/services/list/3/maternity/bereavement-care/national-standards-for-bereavement-care-following-pregnancy-loss-and-perinatal-death.pdf

15. Perinatal Society of Australia and New Zealand. (2019). *Clinical practice guideline for care around stillbirth and neonatal death. Section 3: Respectful and supportive perinatal bereavement care*. https://sanda.psanz.com.au/assets/Uploads/Section-3-Full-bereavement-care-guideline2.pdf

16. Sands. (2018). *Sands Australian principles of bereavement care: Miscarriage, stillbirth and newborn death*. 1st ed. Sands. https://ranzcog.edu.au/wp-content/uploads/2022/05/Sands-Australian-Principles-of-Bereavement-Care.pdf

17. International Stillbirth Alliance. (2023). Preventing and addressing stillbirths along the continuum of care: A global advocacy and implementation guide. Version 1. Stillbirth Advocacy Working Group. https://www.stillbirthalliance.org/global-advocacy-and-implementation-guide/

18. WHO. (2022). WHO guide for integration of perinatal mental health in maternal and child health services. WHO. https://www.who.int/publications/i/item/9789240057142

19. Mergl, R., Quaatz, S. M., Edeler, L. M., Allgaier, A. K. (2022). Grief in women with previous miscarriage or stillbirth: A systematic review of cross-sectional and longitudinal prospective studies. E*uropean Journal of Psychotraumatology*, 13(2), 2108578. doi: 10.1080/20008066.2022.2108578

20. Endomba, F. T., Ndoadoumgue, A. L., Mbanga, C. M., et al. (2021). Perinatal depressive disorder prevalence in Africa: A systematic review and Bayesian analysis. *General Hospital Psychiatry*, 69, 55-60. https://doi.org/10.1016/j.genhosppsych.2021.01.006

21. Fariha, F. (2021). Association of perinatal death and postnatal depression among women in low- and middle-income countries between 2000-2021: Systematic review and meta-analysis. MSc Dissertation Thesis, London School of Hygiene and Tropical Medicine.

22. Moya, E., Mzembe, G., Mwambinga, M., et al. (2023). Prevalence of early postpartum depression and associated risk factors among selected women in southern Malawi: A nested observational study. *BMC Pregnancy and Childbirth*, 23(1), 229. https://doi.org/10.1186/s12884-023-05501-z

23. Adeyemi, A., Mosaku, K., Ajenifuja, O., Fatoye, F., Makinde, N., Ola, B. (2008). Depressive symptoms in a sample of women following perinatal loss. J*ournal of the National Medical Association*, 100(12), 1463-68. https://doi.org/10.1016/s0027-9684(15)31548-0

24. Arach, A. A. O., Nakasujja, N., Nankabirwa, V., et al. (2020). Perinatal death triples the prevalence of postpartum depression among women in Northern Uganda: A community-based cross-sectional study. *PLoS* O*ne*, 15(10), e0240409. https://doi.org/10.1371/journal.pone.0240409

25. Assarag, B., Dujardin, B., Essolbi, A., Cherkaoui, I., De Brouwere, V. (2015). Consequences of severe obstetric complications on women's health in Morocco: Please, listen to me! *Tropical Medicine & International Health*, 20(11), 1406-1414. https://doi.org/10.1111/tmi.12586

26. Gausia, K., Fisher, C., Ali, M., Oosthuizen, J. (2009). Magnitude and contributory factors of postnatal depression: A community-based cohort study from a rural subdistrict of Bangladesh. *Psychological Medicine*, 39(6), 999-1007. https://doi.org/10.1017/S0033291708004455

27. Gausia, K., Moran, A. C., Ali, M., Ryder, D., Fisher, C., Koblinsky, M. (2011). Psychological and social consequences among mothers suffering from perinatal loss: Perspective from a low income country. *BMC Public Health*, 11, 451. https://doi.org/10.1186/1471-2458-11-451

28. Sutan, R., Amin, R. M., Ariffin, K. B., Teng, T. Z., Kamal, M. F., Rusli, R. Z. (2010). Psychosocial impact of mothers with perinatal loss and its contributing factors: An insight. *Journal of Zhejiang University Science B*, 11(3), 209-217. https://doi.org/10.1631/jzus.B0900245

29. Prost, A., Lakshminarayana, R., Nair, N., et al. (2012). Predictors of maternal psychological distress in rural India: A cross-sectional community-based study. *Journal of Affective Disorders*, 138(3), 277-286. https://doi.org/10.1016/j.jad.2012.01.029

30. Marwah, S., Gaikwad, H. S., Mittal, P. (2019). Psychosocial implications of stillborn babies on mother and family: A review from tertiary care infirmary in India. *Journal of Obstetrics and Gynaecology of India*, 69(3), 232-238. https://doi.org/10.1007/s13224-018-1173-x

31. Nayak, D., Karuppusamy, D., Maurya, D. K., Kar, S. S., Bharadwaj, B., Keepanasseril, A. (2021). Postpartum depression and its risk factors in women with a potentially life-threatening complication. *International Journal of Gynaecology and Obstetrics*, 154(3), 485-491. https://doi.org/10.1002/ijgo.13549

32. Filippi, V., Ganaba, R., Baggaley, R. F., et al. (2007). Health of women after severe obstetric complications in Burkina Faso: A longitudinal study. *Lancet*, 370(9595), 1329-1337. https://doi.org/10.1016/S0140-6736(07)61574-8

33. Filippi, V., Goufodji, S., Sismanidis, C., et al. (2010). Effects of severe obstetric complications on women's health and infant mortality in Benin. *Tropical Medicine & International Health*, 15(6), 733-742. https://doi.org/10.1111/j.1365-3156.2010.02534.x

34. Roberts, L., Renati, S. J., Solomon, S., Montgomery, S. (2021). Stillbirth and infant death: Mental health among low-income mothers in Mumbai. *BMC Pregnancy and Childbirth*, 21, 292. https://doi.org/10.1186/s12884-021-03754-0

35. Sarkar, A., Siwatch, S., Aggarwal, N., Singla, R., & Grover, S. (2022). The unheard parental cry of a stillbirth: Fathers and mothers. *Archives of Gynecology and Obstetrics*, 305(2), 313-322. https://doi.org/10.1007/s00404-021-06120-9

36. Das, M. K., Arora, N. K., Gaikwad, H., et al. (2021). Grief reaction and psychosocial impacts of child death and stillbirth on bereaved North Indian parents: A qualitative study. *PLoS One*, 16(1), e0240270. https://doi.org/10.1371/journal.pone.0240270

37. Charrois, E. M., Bright, K. S., Wajid, A., et al. (2020). Effectiveness of psychotherapeutic interventions on psychological distress in women who have experienced perinatal loss: A systematic review protocol. *Systematic Reviews*, 9(1), 125. https://doi.org/10.1186/s13643-020-01387-6

38. Haghighi, M., Oladbaniadam, K., Mohaddesi, H., Rasuli, J. (2022). Individual counseling in mothers bereaved by pregnancy loss: A randomized clinical trial. *Journal of Education and Health Promotion*, 11, 209. https://doi.org/10.4103/jehp.jehp_1765_21

39. Navidian, A., Saravani, Z., Shakiba, M. (2017). Impact of psychological grief counseling on the severity of post-traumatic stress symptoms in mothers after stillbirths. *Issues in Mental Health Nursing*, 38(8), 650-654. https://doi.org/10.1080/01612840.2017.1315623

40. Roberts, L. R., Montgomery, S. B. (2015). Mindfulness-based intervention for perinatal grief after stillbirth in rural India. *Issues in Mental Health Nursing*, 36(3), 222-230. https://doi.org/10.3109/01612840.2014.962676

41. Roberts, L. R., Montgomery, S. B. (2016). Mindfulness-based intervention for perinatal grief in rural India: Improved mental health at 12 months follow-up. *Issues in Mental Health Nursing*, 37(12), 942-951. https://doi.org/10.1080/01612840.2016.1236864

42. Salgado, H. O., Andreucci, C. B., Gomes, A. C. R., Souza, J. P. (2021). The perinatal bereavement project: Development and evaluation of supportive guidelines for families experiencing stillbirth and neonatal death in Southeast Brazil - a quasi-experimental before-and-after study. *Reproductive Health*, 18(1), 5. https://doi.org/10.1186/s12978-020-01040-4

43. Mills, T. (2020). Advancing care and support for women and families after stillbirth or neonatal death in Uganda and Kenya. ISRCTNregistry. www.isrctn.com/ISRCTN68506895

44. Mills, T. (2022). Feasibility of a co-produced intervention to improve support after stillbirth and neonatal death in India and Pakistan. ISRCTNregistry. www.isrctn.com/ISRCTN42868391

45. Abayneh, M., Rent, S., Ubuane, P. O., et al. (2023). Perinatal palliative care in sub-Saharan Africa: Recommendations for practice, future research, and guideline development. *Frontiers in Pediatrics*, 11, 1217209. https://doi.org/10.3389/fped.2023.1217209

46. Shakespeare, C., Merriel, A., Bakhbakhi, D., et al. (2020). The RESPECT Study for consensus on global bereavement care after stillbirth. *International Journal of Gynaecology and Obstetrics*, 149(2), 137-147. https://doi.org/10.1002/ijgo.13110

47. Cornish, E., Siassakos, D. (2021). *Continuous textbook of women's medicine series: Care of bereaved parents after a stillbirth, Volume 15*. Glowm. https://www.glowm.com/article/heading/vol-15--the-puerperium--care-of-bereaved-parents-after-a-stillbirth/id/415313

48. Aggarwal, N., Moatti, Z. (2022). "Getting it right when it goes wrong - Effective bereavement care requires training of the whole maternity team. *Best Practice & Research. Clinical Obstetrics & Gynaecology*. 80, 92-104. https://doi.org/10.1016/j.bpobgyn.2021.10.008

49. Stillbirth Advocacy Working Group Parent Voices Initiative, Still A Mum, The London School of Hygiene & Tropical Medicine (LSHTM), The International Stillbirth Alliance (ISA) (2021). Raising parent voices advocacy toolkit: Kenya parents' version. https://www.stillbirthalliance.org/parent-voices-initiative/advocacy-toolkits/

50. The International Stillbirth Alliance Parent Voices Initiative, Stillbirth Advocacy Working Group, Public Health Foundation of India Gurugram, LSHTM, Post Graduate Institute of Medical Education and Research Chandigarh (2022). Raising parent voices advocacy toolkit: India Healthcare Providers version. https://www.stillbirthalliance.org/parent-voices-initiative/advocacy-toolkits/

51. Actis Danna, V., Lavender, T., Laisser, R., et al. (2023). Exploring the impact of healthcare workers communication with women who have experienced stillbirth in Malawi, Tanzania and Zambia. A grounded theory study. *Women and Birth*, 36(1), e25-e35. https://doi.org/10.1016/j.wombi.2022.04.006

52. Arach, A. A. O., Kiguli, J., Nankabirwa, V., et al. (2022). "Your heart keeps bleeding:" Lived experiences of parents with a perinatal death in Northern Uganda. *BMC Pregnancy and Childbirth*, 22, 491. https://doi.org/10.1186/s12884-022-04788-8

53. Qian, J., Wang, W., Sun, S., et al. (2022). Exploring interactions between women who have experienced pregnancy loss and obstetric nursing staff: A descriptive qualitative study in China. *BMC Pregnancy and Childbirth*, 22, 450. https://doi.org/10.1186/s12884-022-04787-9

54. Gopichandran, V., Subramaniam, S., Kalsingh, M. J. (2018). Psycho-social impact of stillbirths on women and their families in Tamil Nadu, India - a qualitative study. *BMC Pregnancy and Childbirth*, 18, 109. https://doi.org/10.1186/s12884-018-1742-0

55. Thieleman, K., Cacciatore, J. (2020). "As if nothing happened:" Experiences of bereaved parents in Romania. *Omega-Journal of Death and Dying*, 81(4), 685-705. https://doi.org/10.1177/0030222818799949

56. Kuforiji, O., Mills, T. A., Lovell, K. (2023). Women's experiences of care and support following perinatal death in high burden countries: A metasynthesis. *Women and Birth*, 36(2), e195-e202. https://doi.org/10.1016/j.wombi.2022.07.170

57. Ayebare, E., Lavender, T., Mweteise, J., et al. (2021). The impact of cultural beliefs and practices on parents' experiences of bereavement following stillbirth: A qualitative study in Uganda and Kenya. *BMC Pregnancy and Childbirth*, 21, 443. https://doi.org/10.1186/s12884-021-03912-4

58. Milton, R., Alkali, F. I., Modibbo, F., et al. (2021). A qualitative focus group study concerning perceptions and experiences of Nigerian mothers on stillbirths. *BMC Pregnancy and Childbirth*, 21, 830. https://doi.org/10.1186/s12884-021-04207-4

59. WHO & UNFPA. (2008*). Maternal mental health and child health and development in low and middle income countries: report of the meeting held in Geneva, Switzerland, 30 January - 1 February, 2008*. https://www.who.int/publications/i/item/9789241597142

60. WHO. (2018). *WHO recommendations: Intrapartum care for a positive childbirth experience*. https://www.who.int/publications/i/item/9789241550215

61. WHO. (2022). *WHO recommendations on maternal and newborn care for a positive postnatal experience*. https://www.ncbi.nlm.nih.gov/books/NBK579653/table/fm-ch2.tab1/

62. WHO. (2023). *Toolkit for implementation of the WHO intrapartum care and immediate postnatal care recommendations in health-care facilities*. https://www.who.int/publications/i/item/9789240081314

63. WHO. (2021). *WHO labour care guide: User's manual*. https://www.who.int/publications/i/item/9789240017566

64. WHO. (2017). *Managing complications in pregnancy and childbirth: A guide for midwives and doctors* (2nd ed.). https://www.who.int/publications/i/item/9789241565493

65. Geller, P., Woodland, M., Daetwyler, C. (2015). Psychological and medical aspects of pregnancy loss. *MedEdPORTAL*. https://www.mededportal.org/doi/10.15766/mep_2374-8265.10240

66. WHO. (2021). *Network for improving quality of care for maternal, newborn and child health*. Department of Maternal, Newborn, Child and Adolescent Health. https://qualityofcarenetwork.org/

67. WHO. (2021). *The network for improving quality of care for maternal, newborn and child health: Evolution, implementation and progress: 2017-2020 report*. https://www.who.int/publications/i/item/9789240023741

68. WHO. (2021). *Maternal and perinatal death and surveillance and response: Materials to support implementation*. https://www.who.int/publications/i/item/9789240036666

69. International Confederation of Midwives (ICM). (2019). *Essential competencies for midwifery practice*. https://internationalmidwives.org/resources/essential-competencies-for-midwifery-practice/

70. ICM. (2023). *Direct entry midwifery programme guide*. https://internationalmidwives.org/resources/direct-entry-midwifery-programme-guide/

71. ICM. (2023). *Post-nursing midwifery programme guide*. https://internationalmidwives.org/resources/post-nursing-midwifery-programme-guide/

72. International Federation of Gynecology and Obstetrics (FIGO). (2021). *FIGO statement: Ethical framework for respectful maternity care during pregnancy and childbirth*. www.figo.org/resources/figo-statements/ethical-framework-respectful-maternity-care-during-pregnancy-and-childbirth

73. Maternal and Child Survival Program (MCSP). (2020). *Moving respectful maternity care into practice in comprehensive MCSP maternal and newborn programs: Operational guidance*. https://mcsprogram.org/resource/moving-respectful-maternity-care-into-practice/

74. McNab, S. E., Dryer, S. L., Fitzgerald, L., et al. (2022). The silent burden: a landscape analysis of common perinatal mental disorders in low- and middle-income countries. *BMC Pregnancy and Childbirth*, 22, 342. https://doi.org/10.1186%2Fs12884-022-04589-z

75. Flenady, V., Oats, J., Gardener, G., et al. (2020). *Clinical practice guideline for care around stillbirth and neonatal death*. Version 3.4. https://starlegacyfoundation.org/wp-content/uploads/Flenady-2020-PSANZ-Clinical-Practice-Guideline-for-Stillbirth-and-Neonatal-Death.pdf

76. SANDS (UK). (2022). *National bereavement care pathway: Stillbirth.* https://www.nbcpathway.org.uk/wp-content/uploads/2024/03/NBCP-Stillbirth-short-guidance-July-2022.pdf

77. Burgess, A., Murray, C., Clancy, A. (2023). Fathers' relational experiences of stillbirth: Pre-natal attachment, loss and continuing bonds through use of objects. *Omega-Journal of Death and Dying*, 0(0), https://doi.org/10.1177/00302228231162736

78. Glaser Chodik, N., Baum, N. (2023). The experience of men following stillbirth: the case of Israeli bereaved fathers. *Journal of Reproductive and Infant Psychology*, 18, 1-16. https://doi.org/10.1080/02646838.2023.2237541

79. Kothari, A., Bruxner, G., Dulhunty, J. M., Ballard, E., Callaway, L. (2022). Dads in distress: Symptoms of depression and traumatic stress in fathers following poor fetal, neonatal, and maternal outcomes. *BMC Pregnancy and Childbirth*, 22, 956. https://doi.org/10.1186/s12884-022-05288-5

80. Lamon, L., De Hert, M., Detraux, J., Hompes, T. (2022). Depression and post-traumatic stress disorder after perinatal loss in fathers: A systematic review. *European Psychiatry*, 65(1), e72. https://doi.org/10.1192/j.eurpsy.2022.2326

81. Obst, K. L., Due, C., Oxlad, M., Middleton, P. (2020). Men's grief following pregnancy loss and neonatal loss: A systematic review and emerging theoretical model. *BMC Pregnancy and Childbirth*, 20, 11. https://doi.org/10.1186/s12884-019-2677-9

82. Roberts, L., Montgomery, S., Ganesh, G., Kaur, H. P., Singh, R. (2017). Addressing stillbirth in India must include men. *Issues in Mental Health Nursing*, 38(7), 590-599. https://doi.org/10.1080/01612840.2017.1294220

83. Boltena, M. T., Kebede, A. S., El-Khatib, Z., et al. (2021). Male partners' participation in birth preparedness and complication readiness in low- and middle-income countries: A systematic review and meta-analysis. *BMC Pregnancy and Childbirth*, 21, 556. https://doi.org/10.1186/s12884-019-2677-9

84. Asim, M., Karim, S., Khwaja, H., Hameed, W., Saleem, S. (2022). The unspoken grief of multiple stillbirths in rural Pakistan: an interpretative phenomenological study. *BMC Women's Health*, 22, 45. https://doi.org/10.1186/s12905-022-01622-3

85. Choummanivong, M., Karimi, S., Durham, J., et al. (2020). Stillbirth in Lao PDR: A healthcare provider perspective. *Global Health Action*, 13(sup2), 1786975. https://doi.org/10.1080/16549716.2020.1786975

86. Haws, R. A., Mashasi, I., Mrisho, M., Schellenberg, J. A., Darmstadt, G. L., Winch, P. J. (2010). "These are not good things for other people to know": How rural Tanzanian women's experiences of pregnancy loss and early neonatal death may impact survey data quality. *Social Science & Medicine*, 71(10), 1764-1772. https://doi.org/10.1016/j.socscimed.2010.03.051

87. Kwesiga, D., Tawiah, C., Imam, M. A., et al. (2021). Barriers and enablers to reporting pregnancy and adverse pregnancy outcomes in population-based surveys: EN-INDEPTH study. *Population Health Metrics*, 19(Suppl 1), 15. https://doi.org/10.1186/s12963-020-00228-x

88. Mills, T. A., Ayebare, E., Mukhwana, R., et al. (2021). Parents' experiences of care and support after stillbirth in rural and urban maternity facilities: A qualitative study in Kenya and Uganda. *BJOG: An International Journal of Obstetrics & Gynaecology*, 128(1), 101-109. https://doi.org/10.1111/1471-0528.16413

89. Nendela, A., Farrell, S., Wakasiaka, S., et al. (2023). Women's experiences of care after stillbirth and obstetric fistula: A phenomenological study in Kenya. *Health Expectations*. 26(6), 2475-2484 https://doi.org/10.1111/hex.13841

90. Ssegujja, E., Mulumba, Y., Guttmacher, S., Andipatin, M. (2021). The role and attributes of social networks in the provision of support to women after stillbirth: Experiences from Uganda. *BMC Women's Health*, 21, 352. https://doi.org/10.1186/s12905-021-01498-9

91. Eniola, S., Boateng, E. A., Apiribu, F., Dzomeku, V. (2020). Experiences and coping strategies of perinatally bereaved mothers with the loss. *International Journal of Nursing and Midwifery*, 12, 71-78. https://doi.org/10.5897/IJNM2020.0420

92. Kiguli, J., Namusoko, S., Kerber, K., Peterson, S., Waiswa, P. (2015). Weeping in silence: Community experiences of stillbirths in rural eastern Uganda. *Global Health Action*, 8, 24011. https://doi.org/10.3402/gha.v8.24011

93. Meyer, A. C., Opoku, C., Gold, K. J. (2018). "They say I should not think about it:" A qualitative study exploring the experience of infant loss for bereaved mothers in Kumasi, Ghana. *Omega- Journal of Death and Dying*, 77(3), 267-279. https://doi.org/10.1177/0030222816629165

94. Roberts, L. R., Anderson, B. A., Lee, J. W., Montgomery, S. B. (2012). Grief and women: Stillbirth in the social context of India. *International Journal of Childbirth*, 2(3), 187-198. https://doi.org/10.1891/2156-5287.2.3.187

95. Modiba, L., Nolte, A. (2007). The experiences of mothers who lost a baby during pregnancy. *Health SA Gesondheid: Journal of Interdisciplinary Health Sciences*, 12(2), a245. https://doi.org/10.4102/hsag.v12i2.245

96. Fottrell, E., Kanhonou, L., Goufodji, S., et al. (2010). Risk of psychological distress following severe obstetric complications in Benin: the role of economics, physical health and spousal abuse. *The British Journal of Psychiatry*, 196(1), 18-25. https://doi.org/10.1192/bjp.bp.108.062489

97. Roberts, L. R., Renati, S. J., Solomon, S., Montgomery, S. (2021). Perinatal grief among poor rural and urban women in Central India. *International Journal of Women's Health*, 13, 305-315. https://doi.org/10.2147/ijwh.s297292

98. Ng'oma, M., Atif, N., Meltzer-Brody, S., Stewart, R. C., Chirwa, E. (2022). Exploring the cultural appropriateness of a psychosocial intervention, the Thinking Healthy Programme-Peer delivered (THPP), for perinatal depression in Lilongwe, Malawi. *Malawi Medical Journal*, 34(2), 87-94. https://doi.org/10.4314/mmj.v34i2.3

99. Fernando, S., Brown, T., Datta, K., et al. (2021). The Friendship Bench as a brief psychological intervention with peer support in rural Zimbabwean women: A mixed methods pilot evaluation. *Global Mental Health (Cambridge)*, 8, e31. https://doi.org/10.1017/gmh.2021.32

100. Tripathy, P., Nair, N., Barnett, S., et al. (2010). Effect of a participatory intervention with women's groups on birth outcomes and maternal depression in Jharkhand and Orissa, India: A cluster randomized controlled trial. *The Lancet*, 375(9721), 1182-1192. https://doi.org/10.1016/s0140-6736(09)62042-0

101. Kim, J., Aryee, L. M. D., Bang, H., et al. (2023). Effectiveness of digital mental health tools to reduce depressive and anxiety symptoms in low- and middle-income countries: Systematic review and meta-analysis. *Journal of Medical Internet Research: Mental Health*, 10, e43066. https://doi.org/10.2196/43066

102. Prom, M. C., Denduluri, A., Philpotts, L. L., et al. (2022). A systematic review of interventions that integrate perinatal mental health care into routine maternal care in low- and middle-income countries. *Frontiers in Psychiatry*, 13, 859341. https://doi.org/10.3389/fpsyt.2022.859341

103. Atkins, B., Kindinger, L., Mahindra, M. P., Moatti, Z., Siassakos, D. (2023). Stillbirth: Prevention and supportive bereavement care. *BMJ Medicine*, 2(1), e000262. https://doi.org/10.1136/bmjmed-2022-000262

104. Wojcieszek, A. M., Shepherd, E., Middleton, P., et al. (2018). Care prior to and during subsequent pregnancies following stillbirth for improving outcomes. *Cochrane Database of Systematic Reviews*, 12(12), Cd012203. https://doi.org/10.1002/14651858.cd012203.pub2

105. Bakhbakhi, D., Siassakos, D., Davies, A., et al. (2023). Interventions, outcomes and outcome measurement instruments in stillbirth care research: A systematic review to inform the development of a core outcome set. *BJOG: An International Journal of Obstetrics & Gynaecology*, 130(6), 560-576. https://doi.org/10.1111/1471-0528.17390

106. Dev, A. (2022). Risk of recurrent stillbirth and neonatal mortality: mother-specific random effects analysis using longitudinal panel data from Indonesia (2000 - 2014). *BMC Pregnancy and Childbirth*, 22, 524). https://doi.org/10.1186/s12884-022-04819-4

107. Ssegujja, E., Ddumba, I., Andipatin, M. (2023). An exploration of health workers' experiences in providing bereavement care to mothers following a stillbirth: Results from a subnational level health system in Uganda. *BMC Pregnancy and Childbirth*, 23, 588. https://doi.org/10.1186/s12884-023-05913-x

108. Becker, J., Becker, C., Abeysekera, R., et al. (2023). Silent tears of midwives: 'I want every mother who gives birth to have her baby alive'-A narrative inquiry of midwives experiences of very early neonatal death from Tanzania. *Children*, 10(4), 705. https://doi.org/10.3390/children10040705

APPENDIX A: Objective 1 - Search strategies

A1: UMBRELLA REVIEW OF SYSTEMATIC REVIEWS EXAMINING THE ASSOCIATION BETWEEN STILLBIRTH AND ADVERSE MATERNAL HEALTH OUTCOMES IN ANY SETTING

Embase search July 13, 2023:

((((((((((((((((((Perinatal adj3 death) or peri-natal) adj3 death) or perinatal) adj3 mortality) or peri-natal) adj3 mortality) or f?etal mortality or f?et*) adj3 death) or f?et*) adj3 loss) or f?etal demise or stillb* or still-birth or adverse pregnancy outcome or intrauterine) adj3 death) or intra-uterine) adj3 death) or intrauterine mortality or intra-uterine) adj3 mortality) or pregnancy) adj2 los*).mp. or exp stillbirth/ or exp perinatal mortality/ or exp perinatal death/ or exp fetus death/ or exp fetus mortality/ or exp Pregnancy outcome/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]

AND

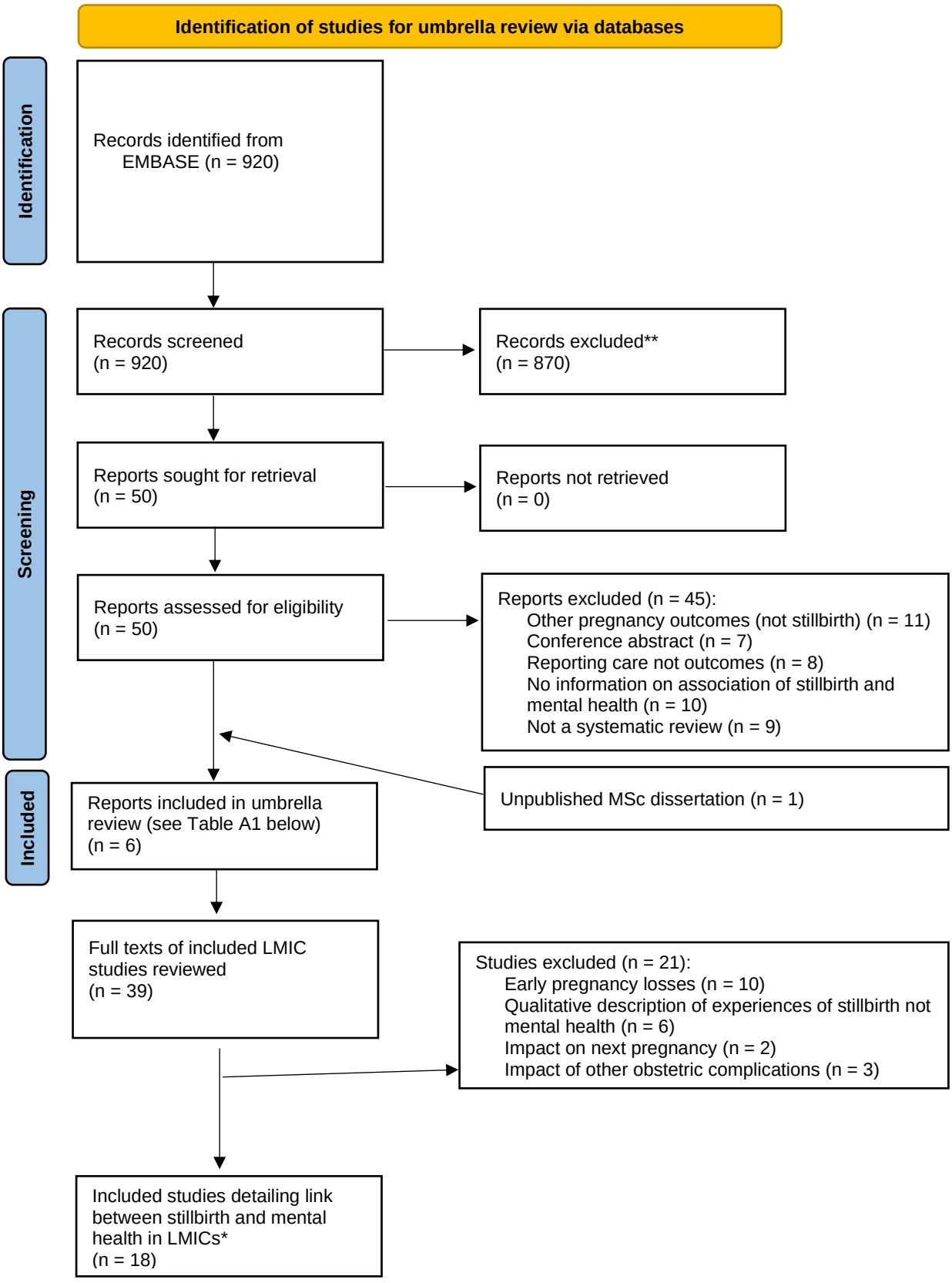
(Depress* or psychological morbidity or psychiatric morbidity or psychiatric illness or psychological illness or self-harm or suicid*).mp. or exp depression/ or exp suicide/ or exp self-injurious behavior/ or exp depressive disorder/ or exp suicidal ideation/ or exp perinatal depression/ or exp major depression/ or exp postnatal depression/ or exp puerperal depression/ or exp minor depression/ or exp depression assessment/ or melancholia/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]

AND

"review"/ or systematic review.mp. or "systematic review"/

Filter 1st January 2000 – current

A2 FIGURE: DETAILS OF STUDY SEARCHES FROM UMBRELLA REVIEW



* All low- or middle-income settings were included. High-income territories in upper-middle income countries were excluded (e.g., Taiwan).

A3: DETAILS OF THE SYSTEMATIC REVIEWS INCLUDED FROM THE UMBRELLA REVIEW

AUTHOR (YEAR)	TITLE
Herbert (2022) [1]	The mental health impact of perinatal loss: A systematic review and meta-analysis
Mergl (2022) [2]	Grief in women with previous miscarriage or stillbirth: A systematic review of cross-sectional and longitudinal prospective studies
Westby (2021) [3]	Depression, anxiety, PTSD, and OCD after stillbirth: A systematic review
Endomba (2021) [4]	Perinatal depressive disorder prevalence in Africa: A systematic review and Bayesian analysis
Burden (2016) [5]	From grief, guilt pain and stigma to hope and pride - a systematic review and meta-analysis of mixed-method research of the psychosocial impact of stillbirth
Fariha (2021) [6]	Association of perinatal death and postnatal depression among women in low- and middle-income countries between 2000-2021: Systematic review and meta-analysis

A4: SEARCHES FOR ADDITIONAL STUDIES OF THE ASSOCIATION BETWEEN STILLBIRTH AND ADVERSE MATERNAL HEALTH OUTCOMES IN LMICS SINCE 2020

Search undertaken in Embase, Global Health, Medline databases using OVID July 16, 2023.

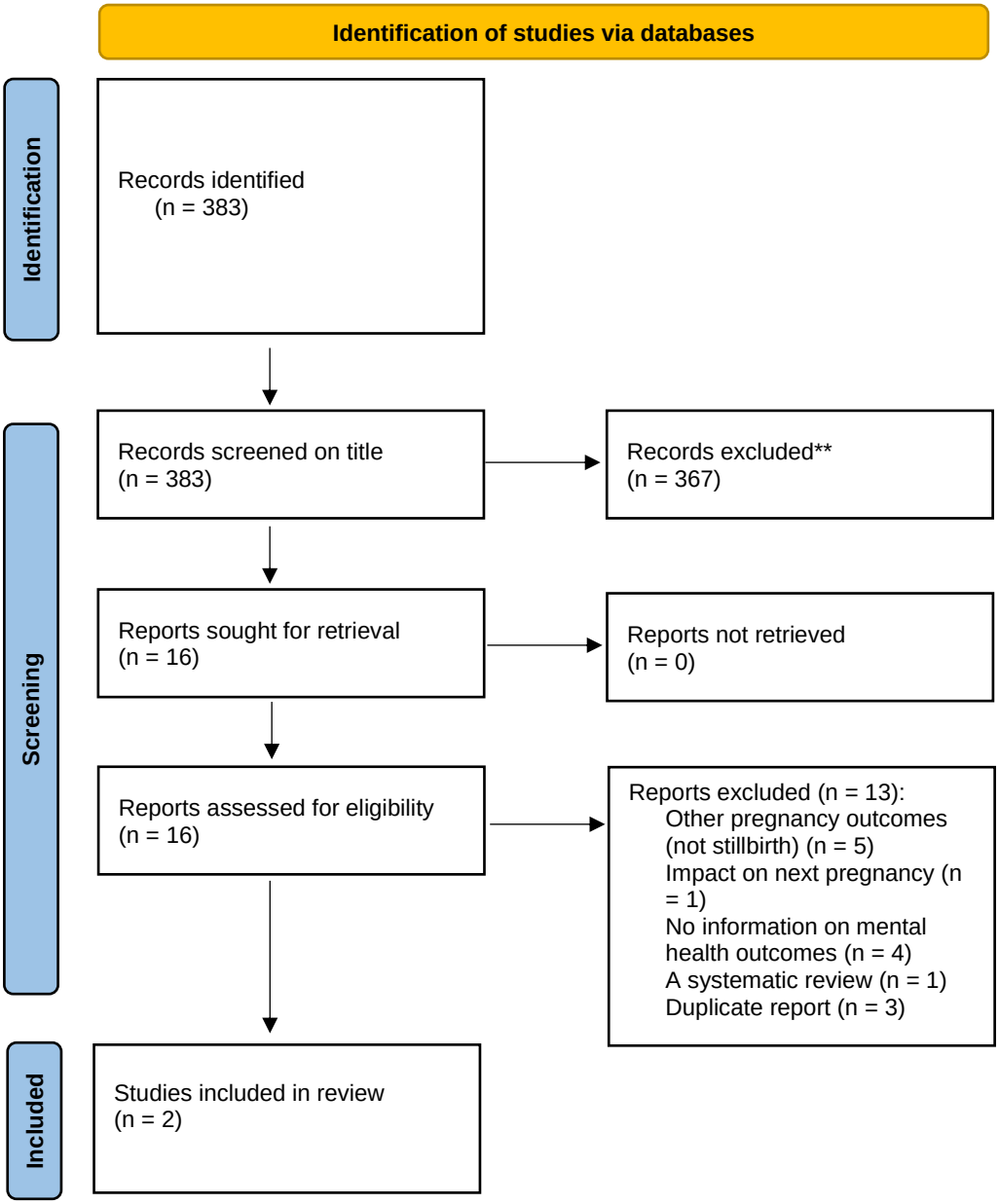
1) ((((((((((((((((((Perinatal adj3 death) or peri-natal) adj3 death) or perinatal) adj3 mortality) or peri-natal) adj3 mortality) or f?etal mortality or f?et*) adj3 death) or f?et*) adj3 loss) or f?etal demise or stillb* or still-birth or adverse pregnancy outcome or intrauterine) adj3 death) or intra-uterine) adj3 death) or intrauterine mortality or intra-uterine) adj3 mortality) or pregnancy) adj2 los*).mp. or exp stillbirth/ or exp perinatal mortality/ or exp perinatal death/ or exp fetus death/ or exp fetus mortality/ or exp Pregnancy outcome/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]

AND

2) (Depress* or psychological morbidity or psychiatric morbidity or psychiatric illness or psychological illness or self-harm or suicid*).mp. or exp depression/ or exp suicide/ or exp self-injurious behavior/ or exp depressive disorder/ or exp suicidal ideation/ or exp perinatal depression/ or exp major depression/ or exp postnatal depression/ or exp puerperal depression/ or exp minor depression/ or exp depression assessment/ or melancholia/ or mental health [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]

Limit to humans. Date limit Jan 1, 2020 to July 16, 2023. In view of the low number of hits, LMIC terms were excluded to avoid potential omission of important information.

A5 FIGURE: DETAILS OF STUDY SEARCHES FOR ADDITIONAL PRIMARY STUDIES SINCE 2020



A6: DETAILS OF TOOLS, TIMING AND THRESHOLDS FOR DIAGNOSIS OF MENTAL HEALTH CONDITIONS

MENTAL HEALTH OUTCOME	TOOL	THRESHOLD USED	TIME SINCE STILLBIRTH (OR NEONATAL DEATH)	STUDY
Depression	Edinburgh Postnatal Depression Scale	≥9	<72 hours 4 weeks	Moya 2023[7] Adeyemi 2008[8]
		≥10	<7 days 2 – 6 weeks Any past history stillbirth 6 weeks – 12 months 8 months 6 weeks 6 – 8 weeks	Nayak 2021*[9] Sarkar 2021[10] Roberts 2021[11] Sutan 2010[12] Assarag 2015[13] Gausia 2009[14] Gausia 2011[15]
		≥13	6 – 18 months <12 months	Theme Filha 2016[16] Inandi 2005[17]
		≥14	50 days	Arach 2020[18]
		unclear	Immediate postpartum OR at 6 weeks	Marwah 2019[19]
	PHQ-9	≥2 symptoms, ≥ half the time in last 2 weeks	4 – 12 weeks	Weobong 2015[20]
		3 or more items**	6 months	Surkan 2016[21]
	Zung Self-Rating Depression Scale	>60	1 – 3 months	Obi 2009[22]

MENTAL HEALTH OUTCOME	TOOL	THRESHOLD USED	TIME SINCE STILLBIRTH (OR NEONATAL DEATH)	STUDY
	K-10	≥14 >15	<12 months 6 and 12 months 3 months 6 weeks	Bell 2008[23] Filippi 2010[24] Filippi 2007[25] Prost 2012***[26]
Anxiety	GAD-7	≥5	2 – 6 weeks	Sarkar 2021[10]
	The Hopkins Symptoms Check List – 10	mean ≥1.65	Any past history stillbirth	Roberts 2021[11]
	Anxiety subscale of HADS (hospital anxiety and depression score)	≥8	4 weeks	Adeyemi 2008[8]
Stress	Perceived Stress Scale (PSS)	≥14	2 – 6 weeks	Sarkar 2021[10]

* Also used PHQ-9 and diagnosis based on ≥10 on either scale, ** modified from PHQ-9 and CES-D, *** states 'non-specific psychological distress' not depression

APPENDIX B: Objective 2 - Rapid review methods

B1: DATABASE SEARCHES OF PUBLISHED LITERATURE

Medline, Embase, and Global Health were searched August 1, 2023 using the following search strategy. In view of the relatively low number of papers, no additional search terms to limit search to interventions studies alone were included and the titles of all papers from LMIC including stillbirth and mental health terms were screened:

((((((((((((((((((Perinatal adj3 death) or peri-natal) adj3 death) or perinatal) adj3 mortality) or peri-natal) adj3 mortality) or f?etal mortality or f?et*) adj3 death) or f?et*) adj3 loss) or f?etal demise or stillb* or still-birth or adverse pregnancy outcome or intrauterine) adj3 death) or intra-uterine) adj3 death) or intrauterine mortality or intra-uterine) adj3 mortality) or pregnancy) adj2 los*).mp. or exp stillbirth/ or exp perinatal mortality/ or exp perinatal death/ or exp fetus death/ or exp fetus mortality/ or exp Pregnancy outcome/

AND

(Depress* or psychological morbidity or psychiatric morbidity or psychiatric illness or psychological illness or self-harm or suicid*).mp. or exp depression/ or exp suicide/ or exp self-injurious behavior/ or exp depressive disorder/ or exp suicidal ideation/ or exp perinatal depression/ or exp major depression/ or exp postnatal depression/ or exp puerperal depression/ or exp minor depression/ or exp depression assessment/ or melancholia/ or mental health.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]

AND

(developing country/ or low income country/ or middle income country/) OR ((developing or less* developed or under developed or underdeveloped or middle income or low* income) adj (economy or economies)).ti,ab. OR ((developing or less* developed or under developed or underdeveloped or middle income or low* income or underserved or under served or deprived or poor*) adj (countr* or nation? or population? or world)).ti,ab. OR (low* adj (gdp or gnp or gross domestic or gross national)).ti,ab. OR (low adj3 middle adj3 countr*).ti,ab. OR (lmic or lmics or third world or lami countr*).ti,ab. OR transitional countr*.ti,ab. OR global south.ti,ab. OR "Africa south of the Sahara"/ OR ("Africa South of the Sahara" or sub-Saharan Africa or subSaharan Africa).ti,ab. OR Central Africa.ti,ab. OR Eastern Africa.ti,ab. OR Southern Africa.ti,ab. OR Western Africa.ti,ab. OR North Korea/ OR (North Korea or (Democratic People* Republic adj2 Korea)).ti,ab. OR Haiti/ OR (Haiti or Hayti).ti,ab. OR Afghanistan/ OR Afghanistan.ti,ab. OR Nepal/ OR Nepal.ti,ab. OR Syrian Arab Republic/ OR (Syria or Syrian Arab Republic).ti,ab. OR Yemen/ OR Yemen.ti,ab. OR Tajikistan/ OR Tajikistan.ti,ab. OR Benin/ OR (Benin or Dahomey).ti,ab. OR Burkina Faso/ OR (Burkina Faso or Burkina Fasso or Upper Volta).ti,ab. OR Burundi/ OR (Burundi or Ruanda-Urundi).ti,ab. OR Central African Republic/ OR (Central African Republic or Ubangi-Shari).ti,ab. OR Chad/ OR Chad.ti,ab. OR Democratic Republic Congo/ OR (((Democratic Republic or DR) adj2 Congo) or Congo-Kinshasa or Belgian Congo or Zaire or Congo Free State).ti,ab. OR Eritrea/ OR Eritrea.ti,ab. OR Ethiopia/ OR (Ethiopia or Abyssinia).ti,ab. OR Gambia/ OR Gambia.ti,ab. OR Guinea/ OR (Guinea not (New Guinea or Guinea Pig* or Guinea Fowl or Guinea-Bissau or Portuguese Guinea or Equatorial Guinea)).ti,ab. OR Guinea-Bissau/ OR (Guinea-Bissau or Portuguese Guinea).ti,ab. OR Liberia/ OR Liberia.ti,ab. OR Madagascar/ OR (Madagascar or Malagasy Republic).ti,ab. OR Malawi/ OR (Malawi or Nyasaland).ti,ab. OR Mali/ OR Mali.ti,ab. OR Mozambique/ OR (Mozambique or Mocambique or Portuguese East Africa).ti,ab. OR Niger/ OR (Niger not (Aspergillus or Peptococcus or Schizothorax or

Cruciferae or Gobius or Lasius or Agelastes or Melanosuchus or radish or Parastromateus or Orius or Apergillus or Parastromateus or Stomoxys)).ti,ab. OR Rwanda/ OR (Rwanda or Ruanda).ti,ab. OR Sierra Leone/ OR (Sierra Leone or Salone).ti,ab. OR Somalia/ OR (Somalia or Somaliland).ti,ab. OR south sudan/ OR South Sudan.ti,ab. OR Tanzania/ OR (Tanzania or Tanganyika or Zanzibar).ti,ab. OR Togo/ OR (Togo or Togolese Republic or Togoland).ti,ab. OR Uganda/ OR Uganda.ti,ab. OR Cambodia/ OR Cambodia.ti,ab. OR exp Indonesia/ OR (Indonesia or Dutch East Indies).ti,ab. OR kiribati/ OR (Kiribati or Gilbert Islands or Phoenix Islands or Line Islands).ti,ab. OR Laos/ OR (Laos or (Lao adj1 Democratic Republic)).ti,ab. OR exp "Federated States of Micronesia"/ OR Micronesia.ti,ab. OR Mongolia/ OR Mongolia.ti,ab. OR Myanmar/ OR (Myanmar or Burma).ti,ab. OR Papua New Guinea/ OR (Papua New Guinea or German New Guinea or British New Guinea or Territory of Papua).ti,ab. OR Philippines/ OR (Philippines or Philippine Islands).ti,ab. OR solomon islands/ OR Solomon Islands.ti,ab. OR Timor-Leste/ OR (Timor-Leste or East Timor or Portuguese Timor).ti,ab. OR Vanuatu/ OR (Vanuatu or New Hebrides).ti,ab. OR Viet Nam/ OR (Viet Nam or Vietnam or French Indochina).ti,ab. OR Kyrgyzstan/ OR (Kyrgyzstan or Kyrgyz Republic or Kirghizia or Kirghiz).ti,ab. OR Moldova/ OR Moldova.ti,ab. OR exp Ukraine/ OR Ukraine.ti,ab. OR exp Uzbekistan/ OR Uzbekistan.ti,ab. OR Bolivia/ OR Bolivia.ti,ab. OR El Salvador/ OR El Salvador.ti,ab. OR Honduras/ OR Honduras.ti,ab. OR Nicaragua/ OR Nicaragua.ti,ab. OR Djibouti/ OR (Djibouti or French Somaliland).ti,ab. OR Egypt/ OR Egypt.ti,ab. OR Morocco/ OR Morocco.ti,ab. OR Tunisia/ OR Tunisia.mp. OR palestine/ OR (Gaza or West Bank or Palestine).ti,ab. OR Bangladesh/ OR Bangladesh.ti,ab. OR Bhutan/ OR Bhutan.ti,ab. OR exp India/ OR India.ti,ab. OR exp Pakistan/ OR Pakistan.ti,ab. OR Angola/ OR Angola.ti,ab. OR Cameroon/ OR (Cameroon or Kamerun or Cameroun).ti,ab. OR Cape Verde/ OR (Cape Verde or Cabo Verde).ti,ab. OR Comoros/ OR (Comoros or Glorioso Islands or Mayotte).ti,ab. OR Congo/ OR (Congo not ((Democratic Republic adj3 Congo) or congo red or crimean-congo)).ti,ab. OR Cote d'Ivoire/ OR (Cote d'Ivoire or Cote dIvoire or Ivory Coast).ti,ab. OR eswatini/ OR (eSwatini or Swaziland).ti,ab. OR Ghana/ OR (Ghana or Gold Coast).ti,ab. OR Kenya/ OR (Kenya or East Africa Protectorate).ti,ab. OR Lesotho/ OR (Lesotho or Basutoland).ti,ab. OR Mauritania/ OR Mauritania.ti,ab. OR Nigeria/ OR Nigeria.ti,ab. OR "sao tome and principe"/ OR (Sao Tome adj2 Principe).ti,ab. OR Senegal/ OR Senegal.ti,ab. OR Sudan/ OR (Sudan not South Sudan).ti,ab. OR Zambia/ OR (Zambia or Northern Rhodesia).ti,ab. OR Zimbabwe/ OR (Zimbabwe or Southern Rhodesia).ti,ab. OR American Samoa/ OR American Samoa.ti,ab. OR china/ or guangxi/ or inner mongolia/ or macao/ or ningxia/ or tibet/ or xinjiang/ OR China.ti,ab. OR Fiji/ OR Fiji.ti,ab. OR exp Malaysia/ OR (Malaysia or Malayan Union or Malaya).ti,ab. OR marshall islands/ OR Marshall Islands.ti,ab. OR nauru/ OR Nauru.ti,ab. OR Samoa/ OR ((Samoa not American Samoa) or Western Samoa or Navigator Islands or Samoan Islands).ti,ab. OR Thailand/ OR (Thailand or Siam).ti,ab. OR Tonga/ OR Tonga.ti,ab. OR tuvalu/ OR (Tuvalu or Ellice Islands).ti,ab. OR Albania/ OR Albania.ti,ab. OR Armenia/ OR Armenia.ti,ab. OR exp Azerbaijan/ OR Azerbaijan.ti,ab. OR Belarus/ OR (Belarus or Byelarus or Byelorussia or Belorussia).ti,ab. OR exp "Bosnia and Herzegovina"/ OR (Bosnia or Herzegovina).ti,ab. OR Bulgaria/ OR Bulgaria.ti,ab. OR exp "Georgia (republic)"/ OR Georgia.ti,ab. not "georgia (u.s.)"/ OR Kazakhstan/ OR (Kazakhstan or Kazakh).ti,ab. OR Kosovo/ OR Kosovo.ti,ab. OR "Montenegro (republic)"/ OR Montenegro.ti,ab. OR "republic of north macedonia"/ OR North Macedonia.ti,ab. OR Romania/ OR Romania.ti,ab. OR exp Russian Federation/ OR ussr/ OR (Russia or Russian Federation or USSR or Union of Soviet Socialist Republics or Soviet Union).ti,ab. OR exp Serbia/ OR Serbia.ti,ab. OR "Turkey (republic)"/ OR (Turkey.ti,ab. not "Turkey (bird)"/) or (Anatolia or Asia Minor).ti,ab. OR Turkmenistan/ OR Turkmenistan.ti,ab. OR Argentina/ OR (Argentina or Argentine Republic).ti,ab. OR Belize/ OR (Belize or British Honduras).ti,ab. OR exp Brazil/ OR Brazil.ti,ab. OR Colombia/ OR Colombia.ti,ab. OR Costa Rica/ OR Costa Rica.ti,ab. OR Cuba/ OR Cuba.ti,ab. OR Dominica/ OR Dominica.ti,ab. OR Dominican Republic/ OR Dominican Republic.ti,ab. OR Ecuador/ OR Ecuador.ti,ab. OR Grenada/ OR Grenada.ti,ab. OR Guatemala/ OR Guatemala.ti,ab. OR Guyana/ OR (Guyana or British Guiana).ti,ab. OR Jamaica/ OR Jamaica.ti,ab. OR exp Mexico/ OR (Mexico or United Mexican States).ti,ab. OR Paraguay/ OR Paraguay.mp. OR Peru/ OR Peru.ti,ab. OR Saint Lucia/ OR (St Lucia or Saint Lucia or Iyonala or Hewanorra).ti,ab. OR "Saint Vincent and the Grenadines"/ OR (Saint Vincent or St Vincent or Grenadines).ti,ab. OR Suriname/ OR (Suriname or Dutch Guiana).ti,ab. OR Venezuela/ OR Venezuela.ti,ab. OR Algeria/ OR Algeria.ti,ab. OR Iran/ OR (Iran or Persia).ti,ab. OR exp

Iraq/ OR (Iraq or Mesopotamia).ti,ab. OR Jordan/ OR Jordan.ti,ab. OR Lebanon/ OR (Lebanon or Lebanese Republic).ti,ab. OR Libyan Arab Jamahiriya/ OR libya.ti,ab. OR Lebanon/ OR (Lebanon or Lebanese Republic).ti,ab. OR Libyan Arab Jamahiriya/ OR libya.ti,ab. OR maldives/ OR Maldives.ti,ab. OR Sri Lanka/ OR (Sri Lanka or Ceylon).ti,ab. OR Botswana/ OR (Botswana or Bechuanaland or Kalahari).ti,ab. OR Equatorial Guinea/ OR (Equatorial Guinea or Spanish Guinea).ti,ab. OR Gabon/ OR (Gabon or Gabonese Republic).ti,ab. OR Mauritius/ OR (Mauritius or Agalega Islands).ti,ab. OR Namibia/ OR (Namibia or German South West Africa).ti,ab. OR South Africa/ OR (South Africa or Cape Colony or British Bechuanaland or Boer Republics or Zululand or Transvaal or Natalia Republic or Orange Free State).ti,ab.

Limited to human studies. Year of publication: 2010 – current.

After de-duplication, 681 titles and abstracts were screened. Three studies were identified directly through the search, and an additional study through hand search of the reference lists. Four studies evaluating interventions for women with stillbirth or perinatal loss were included.

Additional searches of a range of databases that may better represent published data from sub-Saharan Africa and Southern Asia were searched including African Index Medicus, AfricaArXiv, Africa-Wide Information, Bangladesh Journal Online, and Nepal Journal Online Databases using the terms 'stillbirth,' 'mortinaissance,' 'mortinatalité,' and 'muerte fetal.' WHO Global Index Medicus was searched using 'stillbirth bereavement.' No further information on interventions to improve mental health outcomes after stillbirth were found. However, the LILACs database identified seven further studies covering impact of stillbirth not previous located.

B2: Searches of trial registries

We reviewed clinical trial registries for any additional registered studies (https://www.isrctn.com/ and https://www.who.int/clinical-trials-registry-platform, the former is included in the latter WHO umbrella registry but searched separately in view of improved user-interface and search capabilities). Searches of clinical trial registries were undertaken using the terms 'stillbirth,' 'perinatal,' 'bereavement,' 'support,' 'mental health,' and 'depression.' Where available, a .csv file of the results for each of the terms above was downloaded and searched using all additional terms in turn.

B3: GOOGLE SEARCHES:

B3_A. 'Stillbirth mental health Africa' and 'Stillbirth mental health Asia' (first 10 pages searched). Last undertaken September 18, 2023.

WEBSITE	DETAILS	NOTES
https://stillamum.com/	Organization supported >5,000 parents in Kenya since 2015. Providing psychosocial support (child loss bereavement support, loss and grief, individual therapy) and training and workshops (respectful bereavement care, training of counselors)	Organization no longer active. Services for bereaved women in Kenya; no evaluation of outcome.
https://www.who.int/health-topics/stillbirth#tab=tab_1		WHO landing page. No interventions.
https://www.bmh.manchester.ac.uk/stories/preventing-stillbirths-in-africa/ https://evidence.nihr.ac.uk/alert/healthcare-workers-can-help-parents-mourn-their-stillborn-baby/ https://www.lstmed.ac.uk/research/departments/international-public-health/stillbirth-prevention-in-sub-saharan-africa-0	Global Health Research Unit on the prevention and management of stillbirths and neonatal deaths in Sub-Saharan Africa and South Asia	Identified from published literature and stillbirth-specific LMIC searches. Observational information published to date. No intervention studies published from group to date.
https://www.unicef.org/stories/what-you-need-to-know-about-stillbirths	UNICEF fact sheet accompanying 'Never Forgotten' report	No information on evidence for interventions.
https://www.alignmnh.org/issue/stillbirth/	AlignMNH knowledge hub – reporting summary of secondary information from other groups only	No information on evidence for interventions.
https://pmnch.who.int/our-work/focus-areas/maternal-newborn-and-child-health	Have added ('including stillbirths') to their banner on the focus area	No information on evidence for interventions.

B3_B. 'Global perinatal mental health' (first 10 pages searched) October 14, 2023

WEBSITE	DETAILS	NOTES
https://globalalliancematernalmentalhealth.org/		Appears to be a relatively new alliance. No sitemap or search function on website. Reviewed websites of constituent members apart from those focusing on child development and mental health.
https://aammh.org/	African Alliance for Maternal Mental Health University of Edinburgh - Network to Study Psychological resilience in LMIC https://www.ed.ac.uk/global-health/research/research-programmes/nesp	No search functions. No mention of stillbirth on searching by page.
https://makemothersmatter.org/		Search function: yes. No mention of stillbirth.
https://www.postpartum.net/	Runs clinical and supportive care training for perinatal loss. Appears very US based. Observes pregnancy and infant loss awareness month – no explicit link to mental health	Search function: yes. No mention of interventions to improve mental health of women affected by stillbirth.
https://pmhp.za.org/	Perinatal mental health project – South Africa based Only mention of stillbirth is as a risk factor for postnatal anxiety and depression	Search function: yes. No mention of interventions to improve mental health of women affected by stillbirth.
https://www.mmhla.org/	Maternal Mental Health Leadership alliance – US focused	No global work.
https://marcesociety.com/	The International Marcé Society for perinatal mental health	The society has a 'Pregnancy Loss and Newborn Death Work Group.'

WEBSITE	DETAILS	NOTES
		https://marcesociety.com/pregnancy-loss-and-newborn-death-sig/ all listed publications except for one are from HICs. Only one is from an LMIC author (based at a tertiary facility in India summarizing the evidence for effective bereavement care with an international perspective).[27]
https://www.chimeproject.com/	Community Health Intervention through Musical Engagement for Perinatal Mental Health	

APPENDIX C: OBJECTIVE 2 - Findings of rapid review of literature

C1: Details of studies of interventions to improve mental health outcomes for women experiencing stillbirth in LMICs from rapid review

STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
Roberts et al[28,29]	India (Rural Chhattisgarh)	22 women affected by stillbirth in the previous 12 months	**Pre/post intervention** All participants received a two-session pilot of a Mindfulness-based Intervention for Perinatal Grief, pre-tested using 10 key informant interviews to explore concept acceptability, receptivity, modality, and feasibility of the intervention in the setting. The following scales were assessed: pre-intervention, at 6 weeks, and 12 months post-intervention. HSCL-10, Satisfaction with life scale, religious coping questionnaire, perinatal grief scale, social provisions scale, five facet questionnaire. Scores pre-intervention and at 6 weeks and 12 months were compared	Only six women attended both sessions. Some evidence of a decrease in the HSCL-10 (p=0.057), evidence of change in the five facets of mindfulness, no change in the other scales at 6 weeks. [28] 12-month follow-up evidence of reductions in perinatal grief and psychological symptoms; four of the five facets of mindfulness changed in the desired direction; and resilience scores indicated thriving.[29] * Limitations: Sample size very small.
Haghighi 2022[30]	Iran Shahid Motahari Teaching Hospital (Urmia)	100 women with pregnancy loss randomly allocated to intervention or control arm Recruitment?	**Randomized controlled study** Intervention: Four individual counseling sessions from a midwifery consultant trained by a psychiatrist (weekly sessions with a duration of one hour) based on Warden's principles.	DASS-42 scores were similar between groups at baseline (p>0.5). At endline (1 month after final counseling session), depression, anxiety, stress, and overall DASS-42 scores were lower in the intervention group (p<0.001).

STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
		Immediately after pregnancy loss 25 women had experienced stillbirth, 25 neonatal death, 31 abortion (miscarriage), 14 ectopic pregnancy, and five molar pregnancy	Control group: Routine care (not specified) Depression Anxiety Stress Scale (DASS-42) recorded at baseline	Limitations: Lacking information on what the usual standard of care the control group received was. Only a quarter of women had experienced stillbirth. Women with stillbirth may react differently to individual counseling than women without. No study flow chart provided. Analysis appears not to have been done on an intention to treat basis: "*Participants with a history of a stressful event (such as the loss of a loved one) during the study period, getting pregnant again, and those absent for more than two sessions of individual counseling were excluded from the study.*"
Navidian 2017[31]	Iran Central Maternity Hospital, University of Medical Sciences, Zahedan	100 women with stillbirth ≥22 weeks referred to the study hospital	**Randomized controlled study** Intervention: Four sessions of small-group psychological counseling over two weeks Control group: Routine postnatal care (not specified) Perinatal Grief Scale evaluated before the intervention and at the end of the 4th session	Mean total grief symptom score and three subscale scores (active grief, difficulty coping, and despair) were similar at baseline and significantly lower in the participants who received psychological counseling than in those who received the routine care at endline ($P < 0.05$). Limitations: Lacking information on what the usual standard of care the control group received was. No study flow chart provided. Analysis appears not to have been done on an intention to treat basis: "*Exclusion criteria were lack of participation in more than one grief and crisis counseling session or possible loss during the study.*"
Salgado et al[32]	Brazil São Paulo State	Women experiencing stillbirth (≥20 weeks and ≥500g) or neonatal death (up to 28 days) in	**Pre/post intervention** Population: First 20 women consenting in each of the pre- and post-period will be interviewed including Perinatal Grief Scale and	Study protocol published. No results yet available, emailed 1st author of the protocol.

STUDY	COUNTRY	PARTICIPANTS	DESCRIPTION OF INTERVENTION	SUMMARY OF FINDINGS
		one of the four public maternity wards in Ribeirão Preto City	Edinburgh Postpartum Depression Scale.	

* Unable to access full text.

APPENDIX D: OBJECTIVE 2 - Factors affecting experience of bereaved mothers

The following studies located during the rapid review explored women's experiences of living with loss. Some of these also include perceptions of care, and information regarding factors that they would have liked included in their supportive care around the birth of the stillborn baby. Two relevant reviews were located, Shakespeare et al[33] (undertook a systematic review of parent's and healthcare professionals' experiences of care after stillbirth in LMIC with search to May 2017), and Kuforiji et al.[34] The findings of these two reviews regarding positive or negative aspects of the supportive care women received around the time of stillbirth were abstracted. Data from all new studies identified during the rapid review with primary data relating to women's experiences of early care not included in the two reviews were then abstracted. Women across these studies, from a wide range of geographies, reported very similar negative and positive care factors perceived to impact their grief journey and subsequent psychological and mental health outcomes.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
Shakespeare 2019[33]	34 studies from 17 countries: S. Africa, Brazil, Iran, Malaysia, China, Russia, India, Nigeria, Ghana, Bangladesh, Indonesia, Uganda, Benin, Ethiopia, Malawi, Somalia, Tanzania	Women affected by stillbirth and healthcare providers in LMICs	Systematic review and meta-summary of parent's and healthcare professionals' experiences of care after stillbirth in LMIC	Neglect of women, insensitivity, poor attitudes, poor communication from healthcare workers.	Knowing the cause of death helped women make sense of the loss and reduced fear of stigma. Specialized bereavement care appropriate to the local setting including separation from women with live births, timely multidisciplinary and psychological input, offering management choices including analgesia, care for next pregnancy. Information and opportunity for discussion of delivery, cause of death, and postnatal care in own language. Option for presence of family throughout care.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
					Positive community support (as opposed to stigmatization and blame).
Kuforiji 2023[34]	8 studies: S. Africa, Uganda, India, Malawi, Ghana, Kenya (5 studies included in Shakespeare review above)	Women affected by stillbirth in high burden settings	A meta-synthesis of qualitative studies of women's experience of care and support following perinatal death in high burden countries	Perceptions of staff not caring that baby not alive. Lack of communication or discussion. Insensitive communication, rudeness, unapproachable, lacking in compassion. Lack of information on cause of death – women left to construct their own explanation. Lack of consideration of women's desires or emotional impacts of certain actions e.g., preventing seeing/holding their baby or co-locating postnatal care with women with live babies.	Verbal encouragement. Nursing on separate wards from those with living babies.
Actis Danna 2023[35]	Malawi, Tanzania, Zambia	33 women experiencing stillbirth in last 12 months	Grounded theory study to understand how and where women became aware of the death and how the interaction with healthcare workers shaped their feelings and experience of grief Central theme: Cultural conformity overrides personal grief	Inadequate or casual communication of death especially if using harsh language, inadequate tone, lack of empathy. Over-hearing news from health professionals talking amongst themselves. Non-conducive hospital environment/ lack of privacy for 'breaking bad news'. Not being told the truth.	Use of sensitive language and compassionate care, "*sorry for your loss;*" perceived attention and empathy from health workers. Telling the woman the news directly in a private space (e.g., separate room, scanning room, doctors' office), but offer to communicate to family members after.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
			Conclusion: A new approach to grieving, which permits individualized and personal expression, may promote psychological wellbeing	'De-prioritizing' women for clinical care after baby has died.	Sufficient time to ask questions e.g., 'why did my baby die?' Mixed opinions on offer to see (show sex)/hold baby/take photos.
Qian[36]	China (Single tertiary maternity hospital)	Seven women with elective termination of pregnancy, miscarriage, stillbirth, fatal fetal anomaly after 14 weeks gestation	Qualitative study aiming to gain an understanding of how women who have experienced pregnancy loss and obstetric nursing staff perceive their interactions; what influencing factors impacted their experiences	Being ignored. Communication – not understanding words used. Women afraid of expressing their needs due to impatient attitude of staff.	Private rooms. Family members to accompany women before or after delivery.
Milton 2021[37]	Nigeria	31 women who had given birth to a liveborn baby in last six months, 16 of whom had previously had a stillbirth	Focus group discussion to explore the experiences and perceptions of stillbirth among mothers from a tertiary medical center in Kano Study focused more on access to physical care	Relative's insensitivity e.g., for a woman experiencing her 2nd stillbirth, "*You gave birth to what you usually give birth to, a stillborn;"* feelings of disappointment with husband's family.	
Gopichandran[38]	India (Tamil Nadu)	Eight women with stillbirth in last year	Qualitative study using in-depth interviews to understand the psycho-social impact, aggravating factors, coping styles, and health system response to stillbirth	Insensitive attitude of health providers: Paternalistic decisionmaking on behalf of patients, defensive behaviors (to avoid blame). Lack of communication.	Other children. Religiosity. Supportive friends and family. Other coping mechanisms:

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
				Lack of information/not knowing cause (impacting next pregnancy). Disrespectful or trivializing attitude (treating stillbirth as a statistic). Admission of the women in the general postnatal ward where there are other mothers with healthy babies (or other situations with live children). Insensitive comments and remarks by family members, friends, and neighbors (isolation as a coping strategy).	isolating themselves because of guilt, grief, shame, sense of stigma/failed womanhood.
Thieleman 2018[39]	Romania	237 women with previous stillbirth (25.8%) or child death. Majority Orthodox Christian. Median time since event 3.78 years	Mixed methods study to explore lived experiences of pregnancy loss and child death Higher psychological distress scores for women with stillbirth or infant death compared to those at older age	Disrespectful treatment of stillborn baby, "*My baby was treated like garbage after her birth. They put (her) in a garbage bag and threw (her) on the scale." "They threw the baby in a dirty bucket and called him 'runt.' I asked to see him, and they said, 'There is not [Sic] to see, it's ugly*.'" Rooming in with mothers with liveborn babies: "*Then I was moved to a room with other four women who had live babies and would go to breastfeed and tell each other about their little miracles."*	Burial of stillborn child (quantitative and qualitative evidence). Family support, especially spouse.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
				Not being offered to see and hold: "*Female doctor told me not to look at the baby, which makes me feel sorry now, but at the time, I was unaware that I could hold my baby girl, stroke her and cry with her in my arms.*" "(*It was) as if he never existed, I wasn't even given the chance to see or bury my baby*." Perceived avoidance and cruelty of providers; 'indifferent, cold, and insensitive.' "*They refused to show me my baby girl and pushed me into signing the consent for incineration the very next day, when I was still sedated, and they insisted it was best for my mental health,*" mother living with regret of not giving her girl an Orthodox burial.	
Das 2021[40]	India Delhi	72 participants with stillbirth (n=22) or child death	Qualitative study to explore experience of parents after stillbirth and child death	Not having answers to 'why'? "*We are not able to get how all this happened when everything was going fine, then how did this happen? We are in suspense.*"	
Ayebare 2022[41]	Uganda and Kenya	134 bereaved parents experiencing stillbirth <1 year	Qualitative study to explore the influence of cultural beliefs and practices on the experiences of bereaved parents and health workers after stillbirth in urban	Not seeing and holding for fear of the potential negative effects of going against 'customs.' Not all participants took comfort from the notion that the baby's death was	Condolences and comfort in the immediate period after the death from friends and family. Ongoing social and financial support from friends and family.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
			and rural settings in Kenya and Uganda	predetermined by a higher power (an explanation frequently given by healthcare providers). Lack of information on cause of death enforces cultural beliefs around the reasons for stillbirth e.g., supernatural forces (earthquakes), witchcraft, consequence of immoral behavior.	
Arach 2022[18]	Uganda	32 parents experiencing stillbirth or early neonatal death in previous two years	Qualitative study, in-depth interviews using descriptive phenomenology To describe the lived experiences of parents following perinatal death in Lira district, Northern Uganda	Grief intensified by perceptions that healthcare providers: • Did not support them • Ignored them Not being told directly the baby had died.	Support/comfort/consoling from healthcare providers. High-quality medical care for postpartum complications. Information on cause of death. A death certificate. Provision of family and community support.
Samutri 2022[42]	Indonesia	Nine participants with 'chronic sorrow' following stillbirth six months to three years previously	Qualitative study utilizing a descriptive phenomenological approach Three themes: 1. Recurrent experience of grief and triggers; 2. Coping strategies and emotional support to treat the feeling of grief; 3. Specific	N/A	Presence of living children (but could also be a trigger) e.g., co-twin alive in NICU, older or younger sibling.

STUDY	COUNTRY	STUDY PARTICIPANTS	BRIEF DESCRIPTION OF THE STUDY	IDENTIFIED NEGATIVE CARE FACTORS	IDENTIFIED POSITIVE CARE FACTORS – EXPERIENCED OR DESIRED
			characteristics of chronic sorrow over perinatal loss.		

These studies show some similarities and some differences from recent meta-synthesis of 16 studies in HICs. [43] Four important areas were highlighted: 1) the need to acknowledge the baby as a unique person, an individual, and parents as parents (personification); 2) respectful attitude - parents are confirmed in their grief; the baby is treated the same way a live baby would be; 3) existential issues about life and death effect all and can lead to isolation and loneliness; 4) stigmatization leading to a sense of loneliness, vulnerability, and being deviant and marginalized.

APPENDIX E: OBJECTIVE 2 - Review of existing global guidance

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
1	THE SILENT BURDEN: A Landscape Analysis of Common Perinatal Mental Disorders in Low- and Middle-Income Countries (2022) https://usaidmomentum.org/app/uploads/2021/09/GECO-357_2021_MCGL-Landscape-Analysis-Brief-for-MMH_sec.508.comp_v2.pdf and McNab 2022[44]	Page 7 Table 1	13 programs with rigorous evidence of effective outcomes to improve perinatal mental health (+/- infant outcome) were identified. Of these, four involved interventions to improve maternal-infant interactions and child development. [45-48] Two were antenatal interventions with no mention of whether any women were bereaved. [49,50] One study of women participatory groups included women with stillbirth, but no stillbirth-specific results are reported. [51] Women with stillbirth or child death were excluded from the remaining six studies. [52-57]	Current evidence base for interventions to improve perinatal and postnatal mental health outcomes do not yet include stillbirths/perinatal deaths.
	https://www.medicalbrief.co.za/wp-content/uploads/2022/06/GECO-357_MCGL-CMPD-Landscape-Analysis_12-21-2021_Sec.508comp_v1.pdf	Page 46	Women's experiences of disrespect and abuse during pregnancy and childbirth have a significant impact on their mental health. In addition, those who experienced such treatment following a stillbirth or perinatal loss noted the lasting impact this had on their mental health and was a risk factor for future mental health conditions (KII 7, KII 29). [58] Women who experienced a previous loss were more likely to experience a common perinatal mental health disorder (CPMD) than those who did not. Yet, the need to promote respectful maternity care (RMC) as part of integrated maternity care to help improve perinatal mental health has been lacking. CPMD interventions should incorporate elements of RMC and person-centered	Respectful maternal care likely to be even more important for women following stillbirth/perinatal death. Yet current available guidance for supportive care limited.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
			maternity care to have true impact on some of the more vulnerable women and continue to protect their rights.	
		Page 56	Another informant who worked with providers to promote better practices in supporting women who have experienced stillbirths and other perinatal loss said she was surprised how eager providers were for guidance on what to say to support women—they simply had not been trained in trauma, loss, and the mental health implications of these experiences (KII 29).	
		Page 60 3.3.2.5. Women who experience a perinatal loss or stillbirth	Key informants frequently mentioned the additional vulnerability of women who experience a perinatal loss or stillbirth. Training during either pre-service or in-service education rarely provides approaches to allow providers to support women experiencing loss in the hours immediately after birth, postpartum, and before another pregnancy occurs (KII 2, KII 29). Most informants noted little being done to support these mothers and that the best strategies are not known. In fact, they may be treated even more poorly in facilities as providers lack the physical space to separate them from mothers with live babies, fear legal action from the families, or are managing their own mental health in dealing with the death. These women are also at risk of CPMD in any subsequent pregnancy, making them an important group to learn more about and include in research and learning.	
2	WHO guide for integration of perinatal mental health in maternal and child health services (Sept. 2022)	Page 38	Short section on infant loss: When women lose their infants through termination, miscarriage, stillbirth, or neonatal death, they and their	Reader is pointed towards a single interactive learning curriculum from the Association of American Medical Colleges.[59] The appropriateness of this

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
	https://www.who.int/publications/i/item/9789240057142		partners need emotional support. Women may have various emotional reactions to the loss of a pregnancy or baby, including experiencing shock, guilt, anger, and sadness. Many women do not know how to tell their family members and friends and may require support in doing so. **Additional considerations for service delivery** ○ Provide training to service providers in supporting women after a pregnancy loss. ○ Assess women's mental health status after a loss. ○ Provide or refer for counseling, as necessary. ○ In cases of stillbirth, women and their partners may be given one or more options: – having a keepsake of the baby – seeing a photograph of the baby – seeing the baby – holding the baby	training material to a global audience is unclear.
3	WHO recommendations: intrapartum care for a positive childbirth experience (Feb. 2018) https://www.who.int/publications/i/item/9789241550215	Pages 19 to 24	Recommendation 1: Respectful Maternity Care is recommended.	No information on specific needs of bereaved women included.
		Pages 25 to 28	Recommendation 2: Effective communication between maternity care providers and women in labor, using simple and culturally acceptable methods, is recommended.	No information on specific needs of women following confirmation of intra-uterine deaths is included.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
4	WHO recommendations on maternal and newborn care for a positive postnatal experience (March 2022) https://www.who.int/publications/i/item/9789240045989	Page 83	Mental health interventions Recommendation 18: Screening for postpartum depression and anxiety using a validated instrument is recommended and should be accompanied by diagnostic and management services for women who screen positive. Recommendation 19: Psychosocial and/or psychological interventions during the antenatal and postnatal period are recommended to prevent postpartum depression and anxiety.	No mention of additional needs of women experiencing stillbirth or perinatal loss. No resources signposted to.
5	Toolkit for implementation of the WHO intrapartum care and immediate postnatal care recommendations in health-care facilities (Oct. 2023) https://www.who.int/publications/i/item/9789240081314			No mention of additional needs of women experiencing stillbirth or perinatal loss. No resources signposted to.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
6	Managing complications in pregnancy and childbirth: a guide for midwives and doctors, 2nd ed. (2017) https://iris.who.int/handle/10665/255760	C-14 to C-15	List of factors that influence a woman's reaction to the death of her baby. **Advice on what to do at the time of the event:** • *Avoid using sedation to help the woman cope. Sedation may delay acceptance of the death and may make reliving the experience later—part of the process of emotional healing—more difficult.* • *Allow the parents to see the efforts made by the caregivers to revive their baby.* • *Encourage the woman/couple to see and hold the baby to facilitate grieving.* • *Prepare the parents for the possibly disturbing or unexpected appearance of the baby (red, wrinkled, peeling skin). If necessary, wrap the baby so that he or she looks as normal as possible at first glance.* • *Avoid separating the woman and baby too soon (before the woman indicates that she is ready) as this can interfere with and delay the grieving process.* **After the event:** • *Allow the woman/family to continue to spend time with the baby. Parents of a stillborn still need to get to know their baby*. • *People grieve in different ways, but for many, remembrance is important. Offer the woman/family small mementos such as a lock of hair, a cot label or a name tag.*	Much detail given for stillbirth compared to the previous section on neonatal deaths (C-13) – no evidence to support recommendations provided.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
			• *Where it is the custom to name babies at birth, encourage the woman/family to call the baby by the name they have chosen.* • *Provide space and time for the woman and her partner to hold their baby, take pictures and talk about the baby's death.* • *Where possible, room women who have suffered the loss of their baby separately from women who have given birth to healthy infants.* • *Ensure access to supportive professional individuals and groups.* • *Allow the woman/family to prepare the baby for a funeral if they wish.* • *Encourage locally accepted burial practices and ensure that medical procedures (such as autopsies) do not preclude them.* • *Where relevant, arrange a discussion with the woman and her partner to sensitively discuss the event and possible preventive measures for the future, without blaming the woman/family.* • *Provide supportive services for health care providers as a way to relieve anxiety and distress.*	
7	WHO Labour Care Guide (Aug. 2021) https://www.who.int/publications/i/item/9789240017566			No mention or signposting of action if identify fetal demise during the monitoring of labor.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
8	Maternal and perinatal death and surveillance and response: Materials to support implementation (Nov. 2021) https://www.who.int/publications/i/item/9789240036666		Stillbirths are included throughout – but the information on definition is now outdated as related to ICD-10/ ICD-PM and not ICD-11.	No mention of the importance of establishing cause of death for stillbirths to reduce blame and improve maternal mental health.
9	The network for improving quality of care for maternal, newborn and child health: evolution, implementation and progress: 2017-2020 report. (May 2021) https://www.who.int/publications/i/item/9789240023741	Page 10	The ten network countries committed to reduce maternal and newborn deaths and stillbirths in participating health facilities by 50% over five years and to improve user satisfaction with the care received. Further web search of network's home page (https://qualityofcarenetwork.org/) found six mentions of stillbirth only. None related to experience of care, communication, or mental health.	No mention of mental health.
10	Never Forgotten: The situation of stillbirth around the globe (Jan. 2023) https://data.unicef.org/resources/never-forgotten-stillbirth-estimates-report/			No mention of mental health.
11	A neglected tragedy: The global burden of stillbirths 2020 (Oct. 2020)	Page 39	Discussed the mental health impacts of the COVID pandemic on parents' sense of control over their care and experience around birth (e.g., forced isolation of mothers delivering babies in facilities and reduced/absent bereavement care following a stillborn death).	Report emphasizes the crucial role of support in mitigating the psychological impact of stillbirth. It outlines eight key components for effective support and underscores the heightened challenges

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
	https://www.unicef.org/reports/neglected-tragedy-global-burden-of-stillbirths-2020	Page 50	Section on 'Policies for family support and counselling' '*Studies show that professional services, support from family, and local social networks that enable parents to share experiences may lower rates of depression and improve mental health.*'[60,61] Suggests eight key elements needed to reduce psychological effects of stillbirth on bereaved parents and families. (No supporting evidence provided – but align to the list from Shakespeare et al 2020 – RESPECT study.[60])	faced by women during the COVID-19 pandemic.
12	Preventing and addressing stillbirths along the continuum of care: A global advocacy and implementation guide (May 2023) https://www.unfpa.org/publications/preventing-and-addressing-stillbirths-along-continuum-care-global-advocacy-and	Page 3	Intro: '*While the mental health impacts of stillbirth vary in severity and manifestation, common emotional themes among bereaved individuals include shock, guilt, blame, a profound need to understand the cause of death and to remember the birth, and irrational and terrifying thoughts. Multiple studies show that while these impacts appear to be most frequent and intense in the first few months following stillbirth, there are long-lasting, complex emotional and psychological impacts on birthing women and their partners. These long-lasting impacts include increased psychological morbidity in subsequent pregnancies and increased risk of severe mental health disorders.*'[62, 63]	Visibility of issue in intro.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
13	FIGO Ethical Framework for RMC (Sept. 2021) https://www.figo.org/sites/default/files/2021-09/FIGO_Statement_Ethical-Framework-Respectful-Maternity-Care-During-Pregnancy-Childbirth_0.pdf			No mention of stillbirth or neonatal death.
14	Moving Respectful Maternity Care into Practice in Comprehensive MCSP Maternal and Newborn Programs: operational guidance March 2020 https://mcsprogram.org/resource/moving-respectful-maternity-care-into-practice/	Page 41	Caring for the carers, potential facilitators based on anecdotal experience '*Mentoring opportunities exist in the local system: Somebody in the facility is available to provide more regular mentoring; serves as a "go to" resource when something happens (e.g., stillbirth).*'	No mention of importance of immediate supportive respectful care for women with stillbirth (or neonatal death).
15	Essential Competencies for Midwifery Practice (Oct. 2019) https://www.internationalmidwives.org/assets/files/general-files/2019/10/icm-competencies-en-print-october-2019_final_18-oct-5db05248843e8.pdf	Page 20	Key competency 4.d. Detect, treat, and stabilize postnatal complications in woman and refer as necessary. *Provide counseling and follow-up care for women and family members who experience stillbirth, neonatal death, serious infant illness, and congenital conditions.*	Disconnect between key competencies and curriculum (see 16 below).
16	Midwifery: Direct Entry Programme Guide (March 2023)	Page 52	Year 2 curriculum includes *'identifying and treating perinatal mental health issues.'* The contents of this are not detailed in document – but it appears to be the same module as for those with previous nurse training.	No mention of stillbirth or neonatal death or training in counseling in the event of a death.

	NAME OF DOCUMENT (LINK)	PAGE/ SECTION OF RELEVANT INFORMATION	SUMMARY OF STILLBIRTH-SPECIFIC INFORMATION	NOTES
	https://www.internationalmidwives.org/assets/files/education-files/2023/05/en-tc_icm-direct-entry-programme-guide.pdf		No mention of stillbirth or neonatal death. No mention of training in counseling.	
17	Post-nursing midwifery programme guide (March 2023) https://www.internationalmidwives.org/assets/files/education-files/2023/05/en-tc_30112022-icm-post-nursing-programme-guide_v0.8-jan-15.pdf	Page 50	Perinatal Mental Health: *This module explores the social, psychological, and physical factors that impact on a woman's mental health during the perinatal period. Students will examine the effect of stigma on a woman's experience of a mental health diagnosis and reflect on personal and community perceptions and attitudes about mental health. Understanding the need for early identification, providing empathetic counselling techniques, and initiating appropriate referral pathways are crucial midwifery skills that will be explored in this module. Students will learn how to identify and support the treatment of women and their families experiencing perinatal mental health issues. Importantly they will understand the symbiotic relationship between a mother's mental health and wellbeing and newborn attachment and early parenting theories.*	No specific mention of stillbirth.

APPENDIX F: OBJECTIVE 2 - Review of stillbirth organizations with a LMIC or global focus

Google search 'Global stillbirth' September 15, 2023. First 10 pages searched.

Only documents not previously captured as part of the document review searches are entered below.

WEBSITE	DETAILS	STILLBIRTH MENTAL HEALTH RELATED NOTES
The International Stillbirth Alliance https://www.stillbirthalliance.org/	The International Stillbirth Alliance (ISA) was founded in 2003 by three U.S.-based bereaved mothers. They intentionally founded it as a global organization, recognizing that no country was paying sufficient attention to stillbirth, nor providing adequate support for bereaved parents and families. ISA aims to help bridge the gaps in addressing stillbirth and early newborn death within the continuum of maternal and newborn health through collaborations for continued research, education, advocacy, and training on global care standards with a variety of stakeholders and partners. We now have around 190 members, including 60 organizations and 130 individual members, all striving to attain the same goal: ending preventable stillbirth and newborn deaths. Under this is an active Stillbirth Advocacy Working group that includes civil society, universities, civil society organizations, and family support groups, professional associations and more. ISA has a Global Registry of Stillbirth Support Organizations https://www.stillbirthalliance.org/isa-registry-map/. However, at the time of the search, the external-facing interface was not functioning so it was not possible to review the organizations. A recent publication reporting on the initial finding found just 50 parent support organizations or point persons in sub-Saharan Africa, 22 in Northern Africa or Western Asia, 28 in Central and Southern Asia, 27 in Eastern and South-Eastern Asia, and 52 in Latin America and the Caribbean.[64]	Resources include: Preventing and addressing stillbirths along the continuum of care: A global advocacy and implementation guide (May 2023) https://www.unfpa.org/publications/preventing-and-addressing-stillbirths-along-continuum-care-global-advocacy-and (already included in UN document review) Parents Voices Advocacy Toolkits Kenya Toolkit (Sept. 2021) https://www.stillbirthalliance.org/wp-content/uploads/2021/12/ISA-Stillbirth-Parents-Toolkit-Kenya.pdf Includes practical advice around advocating for mental health services. Parents Voices Advocacy Toolkits India Toolkit (March 2022) https://www.stillbirthalliance.org/wp-content/uploads/2023/04/PVI-INDIA-TOOLKIT_EDIT_-09_09_2022.pdf p. 23 Provides practical tips 'What is your role in providing stillbirth care?' and when to refer to a mental health care provider.

WEBSITE	DETAILS	STILLBIRTH MENTAL HEALTH RELATED NOTES
Global Health Research Unit on the prevention and management of stillbirths and neonatal deaths in sub-Saharan Africa and South Asia Co-principal investigators https://www.lstmed.ac.uk/about/people/professor-dame-tina-lavender https://www.mlw.mw/csg-member/angela-chimwaza/	NIHR Global Health Research Group on Stillbirth Prevention and Management in sub-Saharan Africa (2017 – 2020) https://www.lstmed.ac.uk/research/departments/international-public-health/stillbirth-prevention-in-sub-saharan-africa-0 NIHR Global Health Research Unit on the prevention and management of stillbirths and neonatal deaths in Sub-Saharan Africa and South Asia Second funding July 2021 – 2026 https://www.fundingawards.nihr.ac.uk/award/NIHR132027	All information previously captured as part of the rapid review of the published literature.
http://lamrn.org/ (This group is part of the research unit listed above.)	Lugina Africa Midwives Research Network (LAMRN) is a network dedicated to improving maternal health outcomes in Africa through increasing evidence-based practice in midwifery. LAMRN aims to support midwifery research, information sharing, networking, and training activities in six countries in the region, namely, Kenya, Malawi, Tanzania, Uganda, Zambia, and Zimbabwe.	All information previously captured as part of the rapid review of the published literature.

In addition to the google global search listed above, two further searches were undertaken on September 16, 2023:

1) Targeted searches of websites of stillbirth and perinatal bereavement organizations looking for evidence of activities or collaborations in LMICs. Websites searched: Pregnancy Loss and Infant Death Alliance (https://plida.memberclicks.net/), Pregnancy After Loss Support (https://pregnancyafterlosssupport.org/), Pregnancy and Infant Loss Network (https://pailnetwork.sunnybrook.ca/, SANDS (https://www.sands.org.uk/), and Tommy's (https://www.tommys.org).
   Results: No evidence of LMIC work located in any of these groups.
2) Manual search of the stillbirth blog series at the Healthy Newborn Network (https://www.healthynewbornnetwork.org/blog/?issue_id=137) for any further stillbirth specific organizations. **Results** provided in the table below.

WEBSITE	DETAILS
Birth with Dignity (Uganda) https://birthwithdignity.org/	'Equipping Uganda Midwives to Change Lives: Reducing Maternal and Neonatal Deaths, While Providing Support in Stillbirth' Working in two hospitals in Uganda. Trainings include: 'Global standards of stillbirth care and a plan for Implementation' and 'Stigma and cultural practices that may inhibit grieving'
https://www.healthynewbornnetwork.org/blog/advanced-bereavement-care-in-zambia/	Blog from 2022 details 'Zambia's new Advanced Bereavement Care guidelines and trainings' facilitated by http://lamrn.org/.
https://www.who.int/news-room/spotlight/why-we-need-to-talk-about-losing-a-baby/unacceptable-stigma-and-shame https://www.who.int/news-room/spotlight/why-we-need-to-talk-about-losing-a-baby	'*This is why we have worked on guidelines for healthcare professionals on how to provide respectful care during pregnancy and childbirth, including guidance on how to deal with miscarriage or stillbirth. The Network for Improving Quality of Care for Maternal, Newborn and Child Health, which currently has ten participating countries was established to ensure that women receive the highest quality of care during pregnancy and childbirth. We know how to tackle mental health conditions that are connected with pregnancy, including anxiety, depression and post-traumatic stress disorder*.'

APPENDIX REFERENCES

1. Herbert, D., Young, K., Pietrusińska, M., MacBeth, A. (2022). The mental health impact of perinatal loss: A systematic review and meta-analysis. *Journal of Affective Disorders*, 297, 118-29. https://www.sciencedirect.com/science/article/abs/pii/S0165032721011009

2. Mergl, R., Quaatz, S. M., Edeler, L. M., Allgaier, A. K. (2022). Grief in women with previous miscarriage or stillbirth: A systematic review of cross-sectional and longitudinal prospective studies. E*uropean Journal of Psychotraumatology*, 13(2), 2108578. https://doi.org/10.1080/20008066.2022.2108578

3. Westby, C. L., Erlandsen, A. R., Nilsen, S. A., Visted, E., Thimm, J. C. (2021). Depression, anxiety, PTSD, and OCD after stillbirth: A systematic review. *BMC Pregnancy and Childbirth*, 21, 782. https://doi.org/10.1186/s12884-021-04254-x

4. Endomba, F. T., Ndoadoumgue, A. L., Mbanga, C. M., et al. (2021). Perinatal depressive disorder prevalence in Africa: A systematic review and Bayesian analysis. *General Hospital Psychiatry*, 69, 55-60. https://doi.org/10.1016/j.genhosppsych.2021.01.006

5. Burden, C., Bradley, S., Storey, C., et al. (2016). From grief, guilt pain and stigma to hope and pride - a systematic review and meta-analysis of mixed-method research of the psychosocial impact of stillbirth. *BMC Pregnancy and Childbirth*, 16, 9. https://doi.org/10.1186/s12884-016-0800-8

6. Fariha, F. (2021). Association of perinatal death and postnatal depression among women in low- and middle-income countries between 2000-2021: Systematic review and meta-analysis. MSc Dissertation Thesis, London School of Hygiene and Tropical Medicine.

7. Moya, E., Mzembe, G., Mwambinga, M., et al. (2023). Prevalence of early postpartum depression and associated risk factors among selected women in southern Malawi: A nested observational study. *BMC Pregnancy and Childbirth*, 23, 229. https://doi.org/10.1186/s12884-023-05501-z

8. Adeyemi, A., Mosaku, K., Ajenifuja, O., Fatoye, F., Makinde, N., Ola, B. (2008). Depressive symptoms in a sample of women following perinatal loss. *Journal of the National Medical Association*, 100(12), 1463-68. https://doi.org/10.1016/s0027-9684(15)31548-0

9. Nayak, D., Karuppusamy, D., Maurya, D. K., Kar, S. S., Bharadwaj, B., & Keepanasseril, A. (2021). Postpartum depression and its risk factors in women with a potentially life-threatening complication. *International Journal of Gynaecology and Obstetrics*, 154(3), 485-491. https://doi.org/10.1002/ijgo.13549

10. Sarkar, A., Siwatch, S., Aggarwal, N., Singla, R., Grover, S. (2022). The unheard parental cry of a stillbirth: Fathers and mothers. *Archives of Gynecology and Obstetrics*, 305(2), 313-322. https://doi.org/10.1007/s00404-021-06120-9

11. Roberts, L., Renati, S. J., Solomon, S., Montgomery, S. (2021). Stillbirth and infant death: Mental health among low-income mothers in Mumbai. *BMC Pregnancy and Childbirth*, 21, 292. https://doi.org/10.1186/s12884-021-03754-0

12. Sutan, R., Amin, R. M., Ariffin, K. B., Teng, T. Z., Kamal, M. F., Rusli, R. Z. (2010). Psychosocial impact of mothers with perinatal loss and its contributing factors: An insight. *Journal of Zhejiang University Science B*, 11(3), 209-217. https://doi.org/10.1631/jzus.B0900245

13. Assarag, B., Dujardin, B., Essolbi, A., Cherkaoui, I., De Brouwere, V. (2015). Consequences of severe obstetric complications on women's health in Morocco: Please, listen to me! *Tropical Medicine & International Health*, 20(11), 1406-1414. https://doi.org/10.1111/tmi.12586

14. Gausia, K., Fisher, C., Ali, M., Oosthuizen, J. (2009). Magnitude and contributory factors of postnatal depression: A community-based cohort study from a rural subdistrict of Bangladesh. *Psychological Medicine*, 39(6), 999-1007. https://doi.org/10.1017/S0033291708004455

15. Gausia, K., Moran, A. C., Ali, M., Ryder, D., Fisher, C., Koblinsky, M. (2011). Psychological and social consequences among mothers suffering from perinatal loss: Perspective from a low income country. *BMC Public Health*, 11, 451. https://doi.org/10.1186/1471-2458-11-451

16. Theme Filha, M. M., Ayers, S., da Gama, S. G., Leal Mdo, C. (2016) Factors associated with postpartum depressive symptomatology in Brazil: The Birth in Brazil National Research Study, 2011/2012. *Journal of Affective Disorders,* 194, 159-67. https://doi.org/10.1016/j.jad.2016.01.020

17. Inandi, T., Bugdayci, R., Dundar, P., Sumer, H., Sasmaz, T. (2015) Risk factors for depression in the first postnatal year: A Turkish study. *Social Psychiatry and Psychiatric Epidemiology,* 40(9), 725-30. https://doi.org/10.1007/s00127-005-0949-3

18. Arach, A. A. O., Kiguli, J., Nankabirwa, V., et al. (2022). "Your heart keeps bleeding:" Lived experiences of parents with a perinatal death in Northern Uganda. *BMC Pregnancy and Childbirth*, 22, 491. https://doi.org/10.1186/s12884-022-04788-8

19. Marwah, S., Gaikwad, H. S., Mittal, P. (2019). Psychosocial implications of stillborn babies on mother and family: A review from tertiary care infirmary in India. *Journal of Obstetrics and Gynaecology of India*, 69(3), 232-238. https://doi.org/10.1007/s13224-018-1173-x

20. Weobong B., Ten Asbroek A. H., Soremekun S., et al. (2015). Determinants of postnatal depression in rural Ghana: Findings from the don population based cohort study. *Depression and Anxiety,* 32(2), 108-19. https://doi.org/10.1002/da.22218

21. Surkan P. J., Sakyi K., Strobino D.M., et al. (2016). Depressive symptoms in mothers after perinatal and early infant loss in rural Bangladesh: A population-based study. *Annals of Epidemiology,* 26(7), 467-73. https://doi.org/10.1016/j.annepidem.2016.06.001

22. Obi, S. N., Onah, H. E., Okafor, I. I. (2009). Depression among Nigerian women following pregnancy loss. *International Journal of Gynaecology & Obstetrics,* 105(1), 60-2. https://doi.org/10.1016/j.ijgo.2008.11.036

23. Bell, J. S., Ouédraogo, M., Ganaba, R., et al. (2008). The epidemiology of pregnancy outcomes in rural Burkina Faso. *Tropical Medicine & International Health,* 13 Suppl 1, 31-43. https://doi.org/10.1111/j.1365-3156.2008.02085.x

24. Filippi, V., Goufodji, S., Sismanidis, C., et al. (2010). Effects of severe obstetric complications on women's health and infant mortality in Benin. *Tropical Medicine & International Health*, 15(6), 733-742. https://doi.org/10.1111/j.1365-3156.2010.02534.x

25. Filippi, V., Ganaba, R., Baggaley, R. F., et al. (2007). Health of women after severe obstetric complications in Burkina Faso: A longitudinal study. *Lancet*, 370(9595), 1329-1337. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)61574-8/abstract

26. Prost, A., Lakshminarayana, R., Nair, N., et al. (2012). Predictors of maternal psychological distress in rural India: A cross-sectional community-based study. *Journal of Affective Disorders*, 138(3), 277-286. https://doi.org/10.1016/j.jad.2012.01.029

27. Aggarwal, N., Moatti, Z. (2022). "Getting it right when it goes wrong - Effective bereavement care requires training of the whole maternity team." *Best Practice & Research. Clinical Obstetrics & Gynaecology*, 80, 92-104. https://doi.org/10.1016/j.bpobgyn.2021.10.008

28. Roberts, L. R., Montgomery, S. B. (2015). Mindfulness-based intervention for perinatal grief after stillbirth in rural India. *Issues in Mental Health Nursing*, 36(3), 222-230. https://doi.org/10.3109/01612840.2014.962676

29. Roberts, L. R., Montgomery, S. B. (2016). Mindfulness-based intervention for perinatal grief in rural India: Improved mental health at 12 months follow-up. *Issues in Mental Health Nursing*, 37(12), 942-951. https://doi.org/10.1080/01612840.2016.1236864

30. Haghighi, M., Oladbaniadam, K., Mohaddesi, H., Rasuli, J. (2022). Individual counseling in mothers bereaved by pregnancy loss: A randomized clinical trial. *Journal of Education and Health Promotion*, 11, 209. https://doi.org/10.4103/jehp.jehp_1765_21

31. Navidian, A., Saravani, Z., Shakiba, M. (2017). Impact of psychological grief counseling on the severity of post-traumatic stress symptoms in mothers after stillbirths. *Issues in Mental Health Nursing*, 38(8), 650-654. https://doi.org/10.1080/01612840.2017.1315623

32. Salgado, H. O., Andreucci, C. B., Gomes, A. C. R., Souza, J. P. (2021). The perinatal bereavement project: Development and evaluation of supportive guidelines for families experiencing stillbirth and neonatal death in Southeast Brazil - a quasi-experimental before-and-after study. *Reproductive Health*, 18(1), 5. https://doi.org/10.1186/s12978-020-01040-4

33. Shakespeare, C., Merriel, A., Bakhbakhi, D., et al. (2019). Parents' and healthcare professionals' experiences of care after stillbirth in low- and middle-income countries: A systematic review and meta-summary. *BJOG: An International Journal of Obstetrics & Gynaecology*, 126(1), 12-21. https://doi.org/10.1111/1471-0528.15430

34. Kuforiji, O., Mills, T. A., Lovell, K. (2023). Women's experiences of care and support following perinatal death in high burden countries: A metasynthesis. *Women and Birth*, 36(2), e195-e202. https://doi.org/10.1016/j.wombi.2022.07.170

35. Actis Danna, V., Lavender, T., Laisser, R., et al. (2023). Exploring the impact of healthcare workers communication with women who have experienced stillbirth in Malawi, Tanzania and Zambia. A grounded theory study. *Women and Birth*, 36(1), e25-e35. https://doi.org/10.1016/j.wombi.2022.04.006

36. Qian, J., Wang, W., Sun, S., et al. (2022). Exploring interactions between women who have experienced pregnancy loss and obstetric nursing staff: A descriptive qualitative study in China. *BMC Pregnancy and Childbirth*, 22(1), 450. https://doi.org/10.1186/s12884-022-04787-9

37. Milton, R., Alkali, F. I., Modibbo, F., et al. (2021). A qualitative focus group study concerning perceptions and experiences of Nigerian mothers on stillbirths. *BMC Pregnancy and Childbirth*, 21, 830. https://doi.org/10.1186/s12884-021-04207-4

38. Gopichandran, V., Subramaniam, S., Kalsingh, M. J. (2018). Psycho-social impact of stillbirths on women and their families in Tamil Nadu, India - a qualitative study. *BMC Pregnancy and Childbirth*, 18, 109. https://doi.org/10.1186/s12884-018-1742-0

39. Thieleman, K., Cacciatore, J. (2020). "As if nothing happened:" Experiences of bereaved parents in Romania. *Omega*, 81(4), 685-705. https://doi.org/10.1177/0030222818799949

40. Das, M. K., Arora, N. K., Gaikwad, H., et al. (2021). Grief reaction and psychosocial impacts of child death and stillbirth on bereaved North Indian parents: A qualitative study. *PLoS One*, 16(1), e0240270. https://doi.org/10.1371/journal.pone.0240270

41. Ayebare, E., Lavender, T., Mweteise, J., et al. (2021). The impact of cultural beliefs and practices on parents' experiences of bereavement following stillbirth: A qualitative study in Uganda and Kenya. *BMC Pregnancy and Childbirth*, 21, 443. https://doi.org/10.1186/s12884-021-03912-4

42. Samutri, E., Widyawati, W., Nisman, WA, et al. (2022). The experience of chronic sorrow among Indonesian mothers who have suffered recent perinatal Lloss. *Open Access Macedonian Journal of Medical Sciences* 10(T8), 114-21. https://doi.org/10.3889/oamjms.2022.9502

43. Persson, M., Hildingsson, I., Hultcrantz, M., et al. (2023). Care and support when a baby is stillborn: A systematic review and an interpretive meta-synthesis of qualitative studies in high-income countries. *PLoS One* 18(8), e0289617. https://doi.org/10.1371/journal.pone.0289617

44. McNab, S. E., Dryer, S. L., Fitzgerald, L., et al. (2022). The silent burden: A landscape analysis of common perinatal mental disorders in low- and middle-income countries. *BMC Pregnancy and Childbirth*, 22, 342. https://doi.org/10.1186%2Fs12884-022-04589-z

45. Baker-Henningham, H., Powell, C., Walker, S., Grantham-McGregor, S. (2005). The effect of early stimulation on maternal depression: A cluster randomised controlled trial. *Archives of Disease in Childhood* 90(12), 1230-4. https://doi.org/10.1136/adc.2005.073015

46. Cooper, P. J., Tomlinson, M., Swartz, L, et al. (2009). Improving quality of mother-infant relationship and infant attachment in socioeconomically deprived community in South Africa: Randomised controlled trial. *BMJ,* 338, b974. https://doi.org/10.1136/bmj.b974

47. Husain, N., Zulqernain, F., Carter, L. A., et al. (2017). Treatment of maternal depression in urban slums of Karachi, Pakistan: A randomized controlled trial (RCT) of an integrated maternal psychological and early child development intervention. *Asian Journal of Psychiatry,* 29, 63-70. https://doi.org/10.1016/j.ajp.2017.03.010

48. Shrestha, S., Adachi, K., Petrini, M. A., Shrestha, S., Rana Khagi, B. (2016). Development and evaluation of a newborn care education programme in primiparous mothers in Nepal. *Midwifery,* 42, 21-8. https://doi.org/10.1016/j.midw.2016.09.006

49. Salehi, F., Pourasghar, M., Khalilian, A., Shahhosseini, Z. (2016). Comparison of group cognitive behavioral therapy and interactive lectures in reducing anxiety during pregnancy: A quasi experimental trial. *Medicine (Baltimore),* 95(43), e5224. https://doi.org/10.1097/md.0000000000005224

50. Zhao, Y., Munro-Kramer, M. L., Shi, S., Wang, J., Luo, J. (2017). A randomized controlled trial: Effects of a prenatal depression intervention on perinatal outcomes among Chinese high-risk pregnant women with medically defined complications. *Archives of Women's Mental Health,* 20(2), 333-44. https://doi.org/10.1007/s00737-016-0712-7

51. Tripathy, P., Nair, N., Barnett, S., et al. (2010). Effect of a participatory intervention with women's groups on birth outcomes and maternal depression in Jharkhand and Orissa, India: A cluster randomized controlled trial. *The Lancet*, 375(9721), 1182-1192. https://doi.org/10.1016/s0140-6736(09)62042-0

52. Fuhr, D. C., Weobong, B., Lazarus, A., et al. (2019). Delivering the Thinking Healthy Programme for perinatal depression through peers: An individually randomised controlled trial in India. *Lancet Psychiatry,* 6(2), 115-27. https://doi.org/10.1016/S2215-0366(18)30466-8

53. Futterman, D., Shea, J., Besser, M., et al. (2010). Mamekhaya: A pilot study combining a cognitive-behavioral intervention and mentor mothers with PMTCT services in South Africa. *AIDS Care,* 22(9), 1093-100. https://doi.org/10.1080/09540121003600352

54. Gao, L. L., Chan, S. W., Sun, K. (2012). Effects of an interpersonal-psychotherapy-oriented childbirth education programme for Chinese first-time childbearing women at 3-month follow up: randomised controlled trial. *International Journal of Nursing Studies,* 49(3), 274-81. https://doi.org/10.1016/j.ijnurstu.2011.09.010

55. Gao, L. L., Xie, W., Yang, X., Chan, S. W. (2015). Effects of an interpersonal-psychotherapy-oriented postnatal programme for Chinese first-time mothers: A randomized controlled trial. *International Journal of Nursing Studies,* 52(1), 22-9. https://doi.org/10.1016/j.ijnurstu.2014.06.006

56. Moshki, M., Baloochi Beydokhti, T., Cheravi, K. (2014). The effect of educational intervention on prevention of postpartum depression: An application of health locus of control. *Journal of Clinical Nursing,* 23(15-16), 2256-63. https://doi.org/10.1111/jocn.12505

57. Rahman, A., Malik, A., Sikander, S., Roberts, C., Creed, F. (2008). Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: A cluster-randomised controlled trial. *The Lancet,* 372(9642), 902-9. https://doi.org/10.1016/S0140-6736(08)61400-2

58. Sudhinaraset, M., Landrian, A., Golub, G. M., Cotter, S.Y., Afulani, P.A. (2021). Person-centered maternity care and postnatal health: Associations with maternal and newborn health outcomes. *AJOG Global Reports,* 1(1), 100005. https://doi.org/10.1016/j.xagr.2021.100005

59. Geller, P., Woodland, M., Daetwyler, C. (2015). Psychological and medical aspects of pregnancy loss. *MedEdPORTAL*. https://www.mededportal.org/doi/10.15766/mep_2374-8265.10240

60. Shakespeare, C., Merriel, A., Bakhbakhi, D., et al. (2020). The RESPECT Study for consensus on global bereavement care after stillbirth. *International Journal of Gynaecology and Obstetrics*, 149(2), 137-147. https://doi.org/10.1002/ijgo.13110

61. Steen, S. E. (2019). Raising the bar: Development of a perinatal bereavement programme. *International Journal of Palliative Nursing,* 25(12), 578-86. https://doi.org/10.12968/ijpn.2019.25.12.578

62. De Frain, J., Martens, L., Stork, J., Stork, W. (1991). The psychological effects of a stillbirth on surviving family members. *Omega-Journal of Death and Dying*, 22(2), 81-108. doi: 10.2190/a8vb-08xr-acgh-2gyg

63. Turton, P., Evans, C., Hughes, P. (2009). Long-term psychosocial sequelae of stillbirth: phase II of a nested case-control cohort study. *Archives of Women's Mental Health,* 12(1), 35-41. https://doi.org/10.1007/s00737-008-0040-7

64. Ponce Hardy, V., Beedle, A., Murphy, S., et al. (2023). Support after stillbirth: Findings from the Parent Voices Initiative Global Registry Project. *Bereavement: Journal of grief and responses to death* 2. https://doi.org/10.54210/bj.2023.1084