

Supplementary Materials: Study Quality Appraisal

Bennett 2008		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	No comparison to population or information about non-respondents. <i>"The percentage of women who responded to the initial letter from each of the four hospitals was modest (33%, 13%, 9%, and 7%, respectively)." (p.492)</i> <i>"The ethnic distribution was skewed, with Caucasians making up 92% of the sample and African Americans, Asians, and Latinas making up 5%, 2%, and 1% of the sample, respectively... Fifty-one percent achieved a graduate degree, 37% reported having a college degree, and 12% graduated high school. Fifty-one percent reported an annual household income of \$100,000 or more, and 22% of the sample reported an annual income of \$50,000 or less." (p.493)</i>
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant.
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol Measures included in methods reported, however previously validated scales collapsed. This was reportedly due to correlation between outcome measures. Impact on outcome validity or selective outcome reporting is unclear. <i>"Scores on the outcome measures chosen for this investigation (PGS, ICG, PCL, and BSI) were highly correlated, thus, some measures were combined for the regression analyses (PGS and ICG; BSI anxiety and depression subscales) to avoid multicollinearity" (p.497)</i>
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Not assessed
Adequacy of statistical methods and confound adjustment	High	No adjustment, only univariate correlations reported.
Blood 2014		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	No comparison to population or information about non-respondents. <i>"...invitations to bereaved parents were posted on several bereavement organization websites and social media websites and sent via group emails to members of parental bereavement organizations. The invitation stated the study was voluntary with no compensation, focused on the topic of bereavement photography, and open to all adult parents who lost children whether or not they had participated in bereavement photography" (p.226)</i> Study advertised as concerning bereavement photography, whose who did not experience this may have been less likely to respond.
Adequacy of exposure measurement (adequacy of the assessment of contact with the	Low	Self-reported post-mortem photography.

stillborn infant)		
Incomplete outcome data (attrition bias)	Low	Cross-sectional study.
Selective outcome reporting	Unclear	No study registration or protocol Measures included in methods reported, although specific measures unclear. <i>“Responses were gathered from a 15-min survey consisting of demographic information and mostly open-ended questions regarding their experiences with postmortem photography. Recruitment materials and survey questions were carefully phrased to encourage the contributions of parents all ages, as well as those who had chosen not to participate in this type of photography.”</i> (p.226)
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Not assessed
Adequacy of statistical methods and confound adjustment	High	No adjustment

Cacciatore 2008		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Participants self-selected into study. Sample representativeness not assessed. <i>“The 104 sites or organizations were invited to recruit women affected by stillbirth to respond to a questionnaire through their Web sites, mailing lists, newsletters, forums, or other means using ready-made invitations. Thirty-seven organizations accepted”</i> (p.314) <i>“Participants represent younger and higher socioeconomic groups (Internet access), and the adjustments for age and educational level in our analyses will not fully correct this fact.”</i> (p.319) <i>“Participants' self-selection into the study may have been correlated with character traits that may influence the woman's psychological response to having a stillborn baby. Methodologically, the selection effect from self-selected participants may compromise the generalizability of the outcomes.”</i> (p.319)
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol Measures included in methods reported
Other bias	--	NA
Comparability of exposed and non-exposed participants	High	Contrasted on both demographic and study specific characteristics. Maternal characteristics and difference between exposed and non-exposed participants compared in Table 3 (p. 317). Significant differences in timing of loss, time since loss, and primary ethnicity. Study criteria of 0.2 meant even more differences were considered potentially relevant between exposed and non-exposed participants in this study.
Adequacy of statistical methods and confound adjustment	Low	Adjustment/comparability on both demographic and study-specific characteristics

		<i>“all potentially confounding factors (associated with both the dependent and the independent variable) with $p < 0.2$ were introduced in multivariable stepwise backward logistic regressions in all further analyses. All covariates were entered in the regressions as continuous, dichotomous, or categorical data. Participant’s pregnancy status while responding, marital status, and mode of recruitment had no confounding effects.” (p. 315)</i>
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Crawley 2013

Risk of bias	Authors’ judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Volunteer online sample. No comparison to population. <i>“participants were recruited via websites supporting parents who had experienced perinatal loss, mostly from the Stillbirth and Neonatal Death (Sands) charity website” (p197). “predominantly white and well-educated... Recruitment from a charity offering support for mothers following stillbirth may mean women in this sample had more symptoms and/or a greater need to share their experiences than other mothers of stillborn babies.” (p204)</i>
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol
Other bias	High	Only a collapsed variable representing the ‘number of memory making activities’ was used in analyses. <i>“The number of different memory-making activities was not associated with mental health outcomes.” (abstract)</i> This fails to capture the effect of any individual contact (such as holding, seeing or taking mementos). Authors conclude that: <i>“When considering whether mothers should be encouraged to see and hold their stillborn babies, it is notable that all mothers saw their babies and nearly all held them, yet mental health scores varied widely, and in this sample there was no association between making memories and PTSD, anxiety or depression symptoms.” (p.203)</i> However, the associations between seeing and holding stillborn and outcomes were not tested and conclusions regarding the impact of either activity cannot reliably be drawn from results presented.
Comparability of exposed and non-exposed participants	Unclear	Not assessed on demographic or specific items. None of the women had no memory making activities with their babies. No information about differences between groups making more or less memories.
Adequacy of statistical methods and confound adjustment	Moderate	Multivariate comparisons adjusted for factors associated with outcomes (e.g., predictors in PTSD) but did not adjust for differences between exposed and non-exposed participants (as this was not assessed). Some adjusted variables including gestation, time since stillbirth are factors which may also have differed between exposed and non-exposed participants. Such adjustment was considered to result in a moderate risk rating for the adequacy of statistical methods and confound adjustment.

Fink 2012

Risk of bias	Authors’ judgement	Support for judgement
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Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Self-selected sample, no comparison to population <i>"In order to recruit these women, links to the study website were posted on Internet websites, list servers, support groups and chat rooms, targeting women who had experienced stillbirth loss. Webmasters who agreed to participate posted a link to the web-based survey that took participants to the study instruments."</i> (p. 41) <i>"the sample was primarily white and well educated, which may limit the generalizability of the findings"</i> (p113). <i>the participants were self-selected, the sample may not have been representative. Women who experienced low levels of grief and who recovered from their loss easily might have chosen not to participate in the current study. The high grief scores suggest this as a possibility. At the same time, those who were particularly distressed or vulnerable might not have wished to participate in a survey. Thus self-selection limits the generalizability of the findings."</i> (p113)
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	High	Self-reported "opportunity to hold baby" rather than actual holding. No adequate exposure measure for holding. Low risk/adequate exposure measure for other contact (memory box).
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Differences between exposed and non-exposed participants assessed but not reported. <i>"The relationships between the demographic variables, and the 53 individual stillbirth intervention variables used in the analyses (not including the two interventions related to blessing and baptism), were investigated using Pearson product-moment correlation coefficients."</i> (p.76)
Adequacy of statistical methods and confound adjustment	High	Stepwise adjustment for demographics and study-specific factors significantly associated with grief scores (outcome variable) in regression models. Differences between exposed and non-exposed participants were not reported so it cannot be determined if these were adequately adjusted for. Other potential interventions were also included in the multivariable model.

Gravensteen 2013		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Low response rate 31% <i>"We consider the low response rate (31%) to be the most critical limitation as this poses a risk of selection bias. We cannot exclude the possibility that a larger proportion of women with a high level of avoidance symptoms declined participation in the study. If so, this would have resulted in an underestimation of the mean score for the avoidance subscale."</i> (p.7)
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	Trail registration reported but not for study items or analyses reported in this paper. Methods report: <i>"The questionnaire comprised four scales</i>

		<i>measuring PTSS, QOL, symptoms of depression and well-being.</i> " (p.2) However results are only presented for posttraumatic stress symptoms. It is unclear if the impact of holding on these outcomes was assessed but not reported, or if it was not assessed as the study focussed on posttraumatic stress.
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Not assessed.
Adequacy of statistical methods and confound adjustment	Moderate	Adjustment for demographic confounds and study specific characteristics (including live birth after stillbirth, prior induced abortion) associated with Post-traumatic Stress Symptom scores (included in multivariable models). However, differences between exposed and non-exposed participants not assessed and thus unclear if all differences between groups were adjusted for. Thus study quality downgraded to moderate for confound adjustment.

Hughes 2002		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Community sample, high response rates. However, selective recruitment as all women were pregnant at time of interview, and had no living children.
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Low attrition over time
Selective outcome reporting	High	No trial registration. <i>We also tested the joint effect of social disadvantage and seeing and holding the dead infant with two way analysis of variance and, again, the only effect was that the association with third trimester depression and seeing the dead infant became narrowly non-significant (p=0.06).</i> " (Hughes 2002 p. 117) Social disadvantage variable implicated from text but not used in comparison of exposed and non-exposed participants. Social disadvantage was found to affect the association between holding and depression but the impact on effect size is not reported or emphasised. It is unclear if this was tested for all relevant outcomes. At Time 3, only PTSD outcomes are reported. It is unclear if depression and anxiety were also assessed at this time. The impact of social disadvantage was not assessed or not reported.
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Not assessed.
Adequacy of statistical methods and confound adjustment	High	Time 1: No adjustment for potential confounds Time 2: Two potential confounds/moderators explored, however other potential confounds were not adjusted for <i>"We have already reported an association between conception within a year of stillbirth and anxiety, depression, and PTSD in the subsequent pregnancy. We therefore tested the joint effect of time since loss and seeing and holding the dead infant with analysis of covariance. This factor had no effect on the significance of any</i>

		<p>associations reported except for third trimester depression, in which instance the association with seeing and holding the dead infant became narrowly non-significant ($p=0.06$). We also tested the joint effect of social disadvantage and seeing and holding the dead infant with two way analysis of variance and, again, the only effect was that the association with third trimester depression and seeing the dead infant became narrowly non-significant ($p=0.06$)." (Hughes 2002 p. 117)</p> <p>Time 3: no adjusted for potential differences between exposed/non-exposed participants</p>
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Kuti 2011		
Risk of bias	Authors' judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	No comparison to birthing or stillbirth population. Participants recruited from only one clinic. However, authors suggest clinic may be representative <i>"Despite the small sample size, however, the results are a good reflection of what might be obtained in the larger community because the study population was homogeneous with, and had the same sociocultural beliefs and practices, as the general population."</i> (p.207)
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol Measures reported in methods assessed
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	Differences not assessed. No exposed participants. <i>"Of the 45 women interviewed, 24 (53.3%) were given the opportunity to see the body of their infant. None was given the opportunity to hold, take pictures, or name the infant."</i> (Abstract. p.205)
Adequacy of statistical methods and confound adjustment	High	Differences not assessed/no unexposed participants. No adjustment.

Lasker 1994		
Risk of bias	Author's judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	Participants recruited from variety of clinics (OBGYN practices, midwifery centres, public and private services). <i>"Demographic and medical information (such as length of pregnancy, age, marital status, occupation, type of loss, and history of previous losses) was collected on both participants and refusers; there were no significant differences between the two groups on these characteristics"</i> (p.45) No assessment of comparability to wider population, however majority of participants were white and educated. <i>"The majority were white and came from a wide range of socioeconomic backgrounds. The women averaged 13.7 years of education, and the men averaged 14.6 years."</i> (p.45)
Adequacy of exposure measurement (adequacy of the assessment of contact with the	Low	Self-reported contact with infant

stillborn infant)		
Incomplete outcome data (attrition bias)	Low	Data presented from initial interview with full sample. No attrition.
Selective outcome reporting	Unclear	No study registration or protocol. Measures reported in methods assessed
Other bias	High	Risk introduced by using number of interventions/types of contact (rather than each intervention individually) for analyses. <i>"In the present report, we will present analyses of both individual items and of a composite scale, "Total Interventions Experienced," for which individual items were added together in order to investigate whether there is any effect of experiencing more interventions" (p.46)</i> However only satisfaction was assessed for each intervention and grief outcomes were only investigated according to the number of total interventions. Conclusions about the impact of any individual intervention cannot be drawn from such analyses. <i>"In most cases, parents were more satisfied if they had experienced an intervention than if they had not, but having experienced more total interventions was not associated with lower grief or greater satisfaction with overall care" (abstract)</i>
Comparability of exposed and non-exposed participants	Unclear	No comparison.
Adequacy of statistical methods and confound adjustment	High	No comparison of exposed and non-exposed, no adjustment for potentially confounding factors.
Radestad 1996		
Risk of bias	Author's judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	Low	Nationally representative survey, high response rate.
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional survey
Selective outcome reporting	Unclear	No study registration or protocol. Different papers report different covariates and items measured. Unclear if these were tested as papers focused on different research questions.
Other bias	--	NA
Comparability of exposed and non-exposed participants	Moderate	Exposed and non-exposed participants compared. Comparable on study-specific characteristics. Some demographic differences. Differences rated as moderate risk. <i>"Compared with mothers with a university education, mothers with an elementary school education were more likely not to have held their baby(adjustedRR2.2; 95% CI1.3–3.8) (Table1). Other maternal, birth and baby characteristics included in Table 1 did not influence the probability of not having held their baby." (Radestad 2009, p.424)</i>
Adequacy of statistical methods	Low	No adjustment for differences in education, however the all other

and confound adjustment		measured demographics and study-specific factors were comparable thus lack of adjustment for these (Radestad et al., 2009)
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Radestad 2009		
Risk of bias	Author's judgement	Support for judgement
Sample representativeness (adequate recruitment, exclusion criteria, response rates, and comparability to wider birthing or stillbirth population)	High	No comparison between respondents and non-respondents. No comparison to birthing or stillbirth population. 57.9% response rate.
Adequacy of exposure measurement (adequacy of the assessment of contact with the stillborn infant)	Low	Self-reported contact with infant
Incomplete outcome data (attrition bias)	Low	Cross-sectional study
Selective outcome reporting	Unclear	No study registration or protocol. Measures reported in methods assessed
Other bias	--	NA
Comparability of exposed and non-exposed participants	Unclear	No comparison between exposed and non-exposed (almost all mothers held their baby).
Adequacy of statistical methods and confound adjustment	High	No comparison or adjustment between exposed and non-exposed.