

Risk factors for complicated grief among family members bereaved in intensive care unit settings: a systematic review

SQA21

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Introduction

Complicated grief arises when an individual experiences prolonged, intense grieving that affects physical and mental health, and impacts on social and emotional wellbeing. Between 5 and 10% experience complicated grief after death in the general population¹. However, studies have shown that the prevalence is much higher amongst family members bereaved in intensive care unit (ICU) settings with some studies estimating a prevalence of 46-52%²⁻³.

Risk factors for complicated grief have been identified in non-ICU settings, however due to the difference in nature of the ICU environment, it is possible that there are ICU specific factors which have previously not been considered.

The objective of this study was to conduct a systematic review identifying risk factors associated with complicated grief among family members of ICU decedents.

Methods

Study inclusion criteria:

- Adult family members of patients admitted to adult ICUs
- No limitations on publication dates
- Cohort studies, case-control studies, cross-sectional studies and randomized and non-randomized controlled trials

Exclusion criteria:

- Families of patients admitted to paediatric or neonatal critical care settings
- No quantitative measure of association with outcome
- Studies not published in English

MEDLINE, EMBASE, CINAHL, PsycINFO, the Cochrane Library and Web of Science were searched. Reference lists were also screened.

Screening of abstracts and assessing full text of potential papers was done in duplicate, with disagreements resolved by a third review author. Relevant data relating to each study was extracted, including associations between risk factors and outcomes. Both univariable and multivariable analysis results were extracted for any time point. Odds ratios, risk ratios and hazard ratios were extracted where possible, if not available another measure of association with its corresponding p-value was.

Quality appraisal was done in duplicate using the Newcastle-Ottawa Scale. A narrative synthesis was conducted due to variability in the risk factors assessed and measures of association.

Results

574 articles were identified, seven were eligible for the review³⁻⁹. Almost all studies were observational in nature, apart from one interventional study. They were conducted in France, Australia, Canada and the USA, with most including multiple ICUs. 4 of the studies were of high quality.

Across the studies 61 different risk factors were investigated, most were only investigated by a single study. Table 1 shows some of the risk factors investigated which showed a significant association with complicated grief at any time point for either univariable or multivariable analysis.

Discussion and Conclusion

Many risk factors were identified by this review which included the patient declining ICU treatments (decreased risk), dying while intubated (increased risk) and unsatisfactory communication with doctors (increased risk) to name a few.

Where the patient had chosen to decline ICU treatments, family members may well have felt treatments were aligned with patient preferences. Communication was another important identified factor. Communication with the medical staff in the context of bereavement outcomes has not been previously assessed. Sensitive and effective communication may be even more important in the ICU due to the distressing nature of the circumstances and environment. Problematic communication may make it harder for family members to understand what has happened and thus lead to difficulties in the grieving process.

Death is common in ICU settings and bereaved family members are at risk of poor outcomes. Yet, proactive screening and bereavement support are uncommon. This systematic review has identified potentially modifiable risk factors, some of which are specific to the ICU setting, which may help identify family members at highest risk of complicated grief. Our findings highlight the need to develop and tailor bereavement screening and follow-up services for family members bereaved in ICU settings.

Table 1: Table indicating risk factors which showed a significant association with complicated grief for any time point in the study. Association shown for univariable analysis, multivariable analysis and for other associations, if investigated

Risk Factor	Univariable analysis	Multivariable analysis
Demographics/Characteristics		
Patient		
Older Age	Decreased risk	Decreased risk
Relative		
Sex (Female)	Increased risk (1) No effect (2) Decreased risk (1)	Increased risk
Older Age	Decreased risk (2) No effect (2)	
Number of people in household	Increased risk (alone) (1) No effect (1)	Increased risk (alone) (2)
Relationship to deceased	Increased risk (spouse)(1) No effect (1)	Increased risk (spouse/partner)
ICU characteristics/variables		
Staff		
Intensivist board certification < 2009	Increased risk	Increased risk
Patients		
Need for vasopressors	Increased risk	
Died while intubated	Increased risk	Increased risk
Refused Treatment	Decreased risk	Decreased risk
Communication Disagreements/Conflict		
Family disagreement EOL decision	Increased risk	
Communication with physician unsatisfactory	Increased risk	Increased risk
Communication with nurse unsatisfactory	Increased risk	No effect
Family perceptions/experiences		
How prepared for partner/child death	Decreased risk	Decreased risk
How drawn out dying process seemed	Increased risk	No effect
How violent death seemed	Increased risk	No effect
How much partner/child suffered compared to what they expected	Increased risk	No effect
Opportunity to say goodbye	Increased risk (No) (1) No effect (1)	Increased risk (No)
Patients' dignity not respected	Increased risk	
Family involved with EOL decision	Decreased risk	
Death not anticipated	Increased risk	
Present at time of death	Increased risk	Increased risk
CAESAR score	Increased risk (Low score)	
Other health and social related relative variables		
Symptoms of depression	Fair concordance	
Symptoms of PTSD	Fair concordance	
Symptoms of social distress	Fair concordance	
PHQ-9 score	Increased Risk	
SDI score	Increased Risk	
IES-r score	Increased Risk (2)	
Other		
BGQ score	Increased Risk	

A number of other risk factors were investigated, but showed no association.

Green indicates the risk factor was associated with a decreased risk of complicated grief and red/orange indicates the study showed an increased risk for complicated grief. Lighter shades of either colour indicates there is also a study which showed no effect for the association. Combined green and red/orange indicates conflicting evidence. Unless otherwise specified by the number of studies in the brackets, the association was only investigated in a single study. Where applicable, further information is given in brackets relating to the risk factor.
Abbreviations: EOL: end of life, SDI: Social Difficulties Inventory (assesses everyday problems in cancer patients), IES-R: Impact of Event Scale-Revised (PTSD), BGQ: Brief Grief Questionnaire (designed to screen for complicated grief), PHQ-9: Patient Health Questionnaire-9 (Depression)

References

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