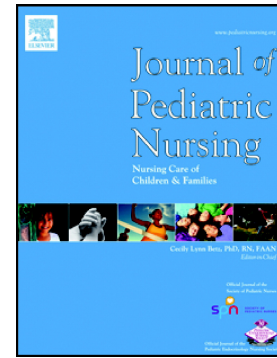


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Psychosocial Care Models for Families of Critically Ill Children in Pediatric Emergency Department Settings: A Scoping Review

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Essential information page

Title: Psychosocial care models for families of critically ill children in pediatric emergency department settings: A scoping review

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TITLE

Psychosocial care models for families of critically ill children in pediatric emergency department settings: A scoping review

ABSTRACT

Problem: Critical illness in children is a significant and stressful life event for families.

Within pediatric emergency department (ED) settings it is acknowledged that these crises are challenging for both the families of these children, and for the clinical staff treating the child.

Literature recommends routine care should include an offer to the family to be present with their critically ill child, however there is a lack of clarity regarding specific family care models or evidence-based interventions to guide clinical practice.

Eligibility criteria: Peer reviewed articles written in English, published between 2006 and 2016, proposing or testing psychosocial care models in pediatric (or mixed) emergency settings.

Sample: Nine articles met inclusion criteria.

Results: Search results showed limited evidence available in the literature at this time.

Thematic analysis of article content and proposed model showed strong support for the benefit of family presence, including shifting the family role from passive to active, needing to be inclusive of the psychological impact of critical health events, importance of multidisciplinary education, and the need for additional exploratory and empirical research to evaluate and refine proposed care models.

Conclusions: Pediatric emergency health events are challenging for both families and staff, and care models provide staff with a consistent, evidence-informed approach to caring for families in challenging situations.

Implications: There is a need to find common ground from specific discipline guidelines into a multidisciplinary team approach for the care of families within emergency care.

Keywords: family; emergency; psychosocial; care model; pediatric.

BACKGROUND

Context

Critical childhood illness is described as being one of the most stressful life events for parents and families of children undergoing life saving critical care (Butler, Copnell & Willetts, 2013; Dudley, Ackerman, Brown & Snow, 2015). Advances in medical technology allow children to be cared for better and longer, though these life saving interventions are increasingly invasive. Family lives are disrupted as parents focus on the challenge of caring for their child within a hospital environment (Abuqamar, Arabiat & Holmes, 2016; Allen, 2014; Cypress, 2014). Families often transport their ill child to hospital themselves, and are actively involved in providing pre-hospital care within the community prior to arrival of emergency services personnel (Hsiao, Redley, Hsiao, Lin, Han & Lin, 2016; Joyce, Libertin & Bigham, 2015). Once arriving at an ED a large team of specialist staff will take over care, and the family are thrown into what is often described as an unfamiliar and overwhelming environment with limited certainty or assurance (Allen, 2014; Cypress, 2014; Gage, 2013; Hsiao et al., 2016).

Family Experience

Pediatric critical health events are well documented as being distressing and challenging for families, with both injury and illness groups experiencing and being at greater risk of a range of psychopathological and psychosocial risks (Landolt, Ystrom, Sennhauser, Gnehm &

Vollrath, 2012; Price, Kassam-Adams, Alderfer, Christofferson & Kazak, 2016). Children and families who perceive a high risk of life threat, reoccurrence, or complications related to pediatric illness or injury are at greatest risk (Price et al., 2016). In ED settings, given a choice between being present or being in another room, the majority of families choose to be present and available to the family member while they are undergoing life saving care (Hsiao et al., 2016; Jabre, Tazarourte, Azouly, Borron, Belpomme, Jacob, Bertrand, Lapostolle, Combes, Galinski, Pinaud, Destefano, Normand, Beltramini, Assez, Vivien, Vicaut & Adnet, 2014; Pasek & Licata, 2016).

Historically the benefits for family presence have been debated in the literature (Moreland, 2005; Robinson, Mackenzie-Ross, Campbell Hewson, Egleston & Prevost, 1998). There is now consensus regarding the emotional and psychological benefits for families to be present in resuscitation situations if they choose to do so (Compton & Fernandez, 2014; Jabre et al., 2014; Smith McAlvin & Carew-Lyons, 2014). This has primarily been driven by the shift towards family centred care models in patient care (Gooding, Pierce & Flaherty, 2012).

Staff Experience

The experience of medical and nursing staff providing resuscitation care in pediatric settings is documented within the literature, with staff reporting this to be both professionally and personally challenging (Berg, Harshbarger, Ahlers-Schmidt & Lippoldt, 2016). Providing psychosocial support to families in these cases is acknowledged to be particularly challenging for staff involved (Alisic, Hoysted, Kassam-Adams, Landolt, Cutis & Kharbanda, 2016; Garcia-Izquierdo & Rios-Risquez, 2012). Clinical staff appreciate having concrete guidelines and information regarding how to support families in these stressful situations, with research recommendations consistently advocating for increased education of staff undertaking acute family support work (Alisic, Hoysted, Kassam-Adams, Landolt, Curtis, Kharbanda, Lyttle,

Parri, Stanley & Babl, 2016; Holbery, 2015). The recommendations are often broad, lacking in specific detail and with limited testing.

Aims – Planning for Care

Clinicians undertaking this work often receive limited warning time regarding the patient's arrival. This requires staff to be ready to engage with a family immediately, but limits time to prepare, leaving clinicians to assess and intervene with families simultaneously. The moment families' walk through the door is the key point to commence support work – the stress does not stop when they arrive at hospital, but can be the start (or an ongoing part) of a longer treatment journey (Cypress, 2014; Foster, Young, Mitchell, Van & Curtis, 2017; Gage, 2013). Facilitating early therapeutic support of families assists with de-escalating acute psychological responses, enabling families to more ably support themselves, and in turn be more available to support the child (Flynn, Fothergill, Wilcox, Coleclough, Horwitz & Ruble, 2015; Hsiao et al., 2016; Marsac, Kassam-Adams, Delahanty, Widman & Barakat, 2014; Porter, Cooper & Taylor, 2014). The reasons critically ill children are brought to EDs are wide-ranging and complex. Each case can involve an equally wide-ranging diversity of social histories and psychosocial needs and these will respond to stressful events in individual ways. These multiple variables create challenges in tailoring support to each family; however, this does not mean that care models could not be inclusive of this diversity of need. This review aims to consider available models in the published literature, and consider what a best approach or care model might look like.

METHODOLOGY

This review asked the question 'what psychosocial care models, frameworks or interventions are available in the literature to guide an effective response to families of critically ill

children in pediatric emergency settings?’ It aimed to scope available literature, exploring evidence-based or evidence-informed guidelines for psychosocial care models specifically designed for use with families within a pediatric ED resuscitation setting. As there were insufficient sources utilising an experimental design to undertake a thorough systematic review, a scoping review design was chosen. Arksey and O’Malley’s (2005) recommended method for undertaking a scoping literature review is recognized as providing a structured framework for narrative interrogation of available evidence (Arksey & O’Malley, 2005). Table 1 outlines search terms used. As per Figure 1, papers were sought through searches of the four largest electronic health and allied health databases (Medline, PsychINFO, CINAHL and SocIndex) in the first half of 2016. The inclusion and exclusion criteria are described Figure 2; please note that only papers from the last ten years were included in the review. This does not discount the value of older research, which is referred to in background literature, but aims to align the review as closely to contemporary practices and policies as possible. After applying the criteria outlined in the aforementioned table and figures, nine articles were included in this review.

RESULTS

Study characteristics

Of the nine papers included in this review all proposed a care model; eight of the papers are from the United States of America and one was from Australia (refer to Table 2). Four of the nine articles tested their proposed model (Curley, Meyer, Scoppettuolo, McGann, Trainor, Rachwal & Hickey, 2012; Mangurten, Scott, Guzzetta, Clark, Vinson, Sperry, Hicks & Voelmeck, 2006; Mian, Warchal, Whitney, Fitzmaurice & Tancredi, 2007; Porter et al., 2014), with all using a mixed quantitative and qualitative methodology in their research design. Sample sizes were mixed but not insignificant. Of the four testing a model, two

papers considered experience of clinicians and families following the implementation of their model (Curley et al., 2012; Mangurten et al., 2006); these two papers excluded psychosocially complex cases from their sample. The two remaining papers explored the views and experience of clinical staff alone (Mian et al., 2007; Porter et al., 2014). The five papers not testing their model (Farah, Thomas & Shaw, 2007; Guzzetta, Clark & Wright, 2006; Kazak, Kassam-Adams, Schneider, Zelikovsky, Alderer & Rourke, 2006; Marsac et al., 2014; Price et al., 2016) are descriptive papers only, with no experimental design or sample; though all discussed their processes in using peer-reviewed papers as the foundation for their models.

Six papers were authored by nursing researchers, with three of these papers published in nursing specific journals (Mangurten et al., 2006; Mian et al., 2007; Porter et al., 2014), and three in emergency medical care journals (Curley et al., 2012; Farah et al., 2007; Guzzetta et al., 2006). The remaining three articles were authored by psychology researchers and published in psychology specific journals (Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016). These three psychologically focussed papers consider both acute responses and the longer-term therapeutic aspect and benefits of family presence, but do not test their proposed model.

When considering the continuum of care and experience of families, all nine articles varied in perspective and recommendations; refer to Table 3 for additional detail. Four of the articles considered the pre-hospital context (Guzzetta et al., 2006; Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), all nine articles considered care in the ED, five commented on care in an ICU setting post-ED (Curley et al., 2012; Guzzetta et al., 2006; Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), four papers discussed care on acute wards (Curley et

al., 2012; Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), and three factored in ongoing care after the initial acute episode of care (Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016). Only the three psychologically focussed papers proposed a model across the entire continuum of care (Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016).

Models of care

The models described in the nine papers can be broadly divided into four diverse streams (Figure 3). Four of the papers (Farah et al., 2007; Guzzetta et al., 2006; Mangurten et al., 2006; Mian et al., 2007) base models on the American Emergency Nurses Association (ENA) Family Presence During Resuscitation (FPDR) guidelines, (Emergency Nurses Association, 2012). Two papers describe the Pediatric Medical Traumatic Stress (PMTS) model, one being the original paper (Kazak et al., 2006), and the second being a proposed variation to the PMTS model into the Trajectory model (Price et al., 2016). The three remaining papers each describe separately developed models: the ER-DRIP model (Porter et al., 2014), the Parental Presence During Resuscitation (Boston Children's Hospital) model (Curley et al., 2012), and a Bio-Psycho-Social Processes framework (Marsac et al., 2014). Consideration of these models together suggests there is a disconnection between discipline specific perspectives – particularly between the nursing-authored and psychology-authored papers. A model which blends both the use of family presence as a practical response to manage people within a pressured, busy ED environment and family presence as a therapeutic psychosocial intervention would arguably provide optimal care.

THEMES ACROSS MODELS

The scoping review identified five strong themes across the reviewed articles: 1) supported family presence is beneficial and does not interrupt clinical care, 2) the necessity of engaging

families in their own psychological recovery, 3) the importance of shifting the parent and family role from passive to active, 4) clear protocols and multidisciplinary staff education about any family support role is essential, and 5) the overwhelming need for more research relating to family care models in ED practice settings.

❖ *Supported family presence is beneficial and does not interrupt clinical care*

Several of the papers reviewed discussed clinical staff concern regarding family presence impacting on clinical care; Mangurten et al.'s 2006 paper specifically examined if care would be interrupted and found would not. In the five papers testing their model, staff reported varying ranges of improved skills and confidence, particularly around communication when family are present (Curley et al., 2012; Farah et al., 2007; Guzzetta et al., 2006; Mangurten et al., 2006; Porter et al., 2014). Overall less experienced staff were more likely to express anxiety and concern regarding family presence than more experienced staff, and recommendations are made to include training regarding family presence in staff education (Curley et al., 2012; Mangurten et al., 2006).

Two studies reported on the family experience (Mangurten et al., 2006; Porter et al., 2014); families who were supported to be present with their child reported positive benefits including increased information sharing, a sense of control, decreased trauma and arousal symptoms, and improved communication with their child's treating team. This was well commented on in the other included articles (Curley et al., 2012; Farah et al., 2007; Guzzetta et al., 2006; Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), with each citing literature examining experience of families in pediatric intensive care environments and other emergency and critical care settings as evidence informing their individual models.

❖ *Engaging families in their own psychological recovery*

Three of the articles focused on the unfolding nature of psychological trauma and psychosocial needs (Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), reporting that potentially psychologically traumatic events occur prior to arrival at an ED, during time in an ED, and are an ongoing factor during hospitalisation. This requires a shift in thinking by clinical staff, as it differs from how physical care unfolds. These three papers propose that the 'peri-trauma phase', when families first arrive in ED, is the ideal time for intervention and screening for longer term psychosocial needs and built this into their proposed models. Early psychological arousal (e.g. heart rate and stress responses) has been linked to greater risk of post-traumatic stress disorder (PTSD) in children and adults (Kassam-Adams, Bakker, Marsac, Fein & Koplein Winston, 2015; Lubomirsky, Wang, Xie, Smirnoff, Biehn & Contractor, 2014; Parker, Sricharoenchai, Raparla, Schneck, Bienvenu & Needham, 2015). However, it is stressed that most children and families are resilient and do not develop PTSD (Colville & Pierce, 2012; Haines, Denehy, Skinner, Warrillow & Berney, 2015; Lubomirsky et al., 2014; Parker et al., 2015). It is agreed throughout these studies that pre-existing function affects child and family response and recovery, and assessment of these at the earliest point is the most proactive way to assist psychosocial recovery.

In addition to the three psychologically focussed studies included in this review, several others made comment in relation to facilitated family presence resulting in decreasing family psychological arousal and response (Curley et al., 2012; Guzzetta et al., 2006; Mangurten et al., 2006). Clearly child and family coping is interconnected, and parenting response and style affect child recovery. Children are embedded in families, and supporting families to make informed choices for their children in these potentially devastating situations is innately self-therapeutic (Gillam, & Sullivan, 2011) and may be considered a way of actively engaging families in their own recovery process.

❖ *Shifting the parent and family role from passive to active*

All articles specifically commented that children's needs must always be considered in context of family. Kazak et al. (2006) comment that "parent-child interactions are critically important during invasive procedures and that triadic interactions among patients, families and healthcare teams impact on many aspects of (healthcare) treatment" (p348). Recent literature increasingly describes parents as team members (Butler et al., 2013; Dudley et al., 2015; Porter et al., 2014), and the articles reviewed were consistent in this view also. Several articles highlighted that families are often active in their child's care pre-hospital arrival (Kazak et al., 2006; Marsac et al., 2014; Price et al., 2016), though only one article directly considered this intersection of care in their model (Guzzetta et al., 2006).

All articles agreed that families want the option of being present with the child, and that while most will choose to be present, if the choice is made not to be present then this is to be respected and families actively supported away from the bedside. Several articles discussed parents and families reporting a sense of duty to be present with their child (Curley et al., 2012; Farah et al., 2007; Guzzetta et al., 2006; Mangurten et al., 2006; Mian et al., 2007; Porter et al., 2014), and that being at the child's bedside in the same situation is something they would do again (Mangurten et al., 2006). In the literature this sense of parental responsibility and active decision-making has been explored most often in end-of-life and palliative care contexts, with parents describing these decisions to be the most difficult but most important decisions they will make in relation to their child's care (Gillam & Sullivan, 2011).

❖ *Clear protocols and multidisciplinary staff education about family support role is essential*

In six of the nine papers it was recommended that the family support role be allocated to one staff member during the family's time in ED (Curley et al., 2012; Farah et al., 2007; Guzzetta et al., 2006; Mangurten et al., 2006; Mian et al., 2007; Porter et al., 2014). The remaining three papers commented generally on the need for staff to have clear information, but did not refer to specific roles or education (Price et al., 2016; Marsac et al., 2014; Kazak et al., 2006). The family support role was most often undertaken by a social worker, child life therapist, pastoral care worker or a senior nurse or doctor not actively engaged in the child's physical care, having received training in the proposed model. A clear theme throughout these papers was that clinical staff gain confidence and skills through training provided for a family support role, and that it is important to have clear, practical guidelines. This is supported by broader literature exploring staff experience of undertaking this challenging area of work (Alisic et al., 2016; Cypress, 2014; Drury, Kemp, Newman, Novelli, Doyle & Walter, 2013).

❖ *Overwhelming need for more research relating to family care models*

By proposing, and in four of the reviewed papers testing, the models in these nine articles, the authors are standardising care to ensure a minimum level of service provision to all families. All nine articles recommend that their particular model, the family support role, and staff education in implementation, all be evaluated more thoroughly. There is a need to develop not only care models, but also specific interventions and screening tools, and to test them experimentally.

DISCUSSION

An analysis of themes emerging from the scoping review provides initial direction for establishing local clinical practice guidelines or protocols. Further exploration of family experience and opinion is required, and empirical testing of family care models in use. As

previously discussed, the literature generally contains the opinion and experience of staff.

There is an opportunity here to be more inclusive of families' voices and their experience of effective and meaningful support in these difficult situations.

Examination of family demographic service usage data in a local context could provide valuable information to better understand individual social and cultural issues that may also impact of service needs. Additionally, the difference in professional skill sets and allocation of clinical responsibilities of staff in the USA could limit the translational value of the American models internationally.

Another influencing, and very practical, factor with limited mention within the reviewed papers is the physical environment. What are the rooms being used for treatment, are there private spaces available for family, and what is their proximity to each other? Is there capacity to have individual staff available or allocated to care for families across these spaces? Physical environment, and particularly noise, is acknowledged to play a significant role in patient and family care and their experience within EDs (Steinke, 2015). The influence of an ED's physical environment on staff safety is a documented issue (Pati, Pati & Harvey, 2016) and there is no question, staff safety is paramount. The reviewed studies found families rarely interfere with their child's care; however, grief reactions can be extreme, and consideration of physical safety within the environment should always be considered. All models proposed are influenced by the physical environment in which they were developed, and therefore individual settings must give close consideration to these factors when adapting models to their own context.

IMPLICATIONS FOR PRACTICE AND FUTURE RESEARCH

It is clear from the articles reviewed that the psychosocial care and management of families of critically ill children within pediatric ED settings is a practice issue relevant to all

clinicians working in these environments. Due to individual family diversity and needs, in combination with health setting demands and sociocultural factors, it is unlikely that there will ever be a definitive ‘one size fits all’ care model or intervention that works universally.

Family care models must be therapeutic and tailored to individual family needs.

The articles reviewed have developed models relevant to their individual service contexts, but translational ability is uncertain. This review adds valuable information to the limited pool of literature currently available, providing suggestions for clinical practice and improved care of families, decreasing both short and long term negative impacts of these unavoidable experiences, and promote improved coping capacity and resilience in families and staff.

This review is also helpful to clinicians looking to develop clinical practice guidelines within their own health services, and to researchers wanting to evaluate them. Once developed, testing any models and interventions in single sites and across broader health services is vital, filling the gap in research and practice that currently exists for therapeutic interventions that begin the moment the family enters the hospital system.

COMPETING INTERESTS

The authors report no conflicts of interest.

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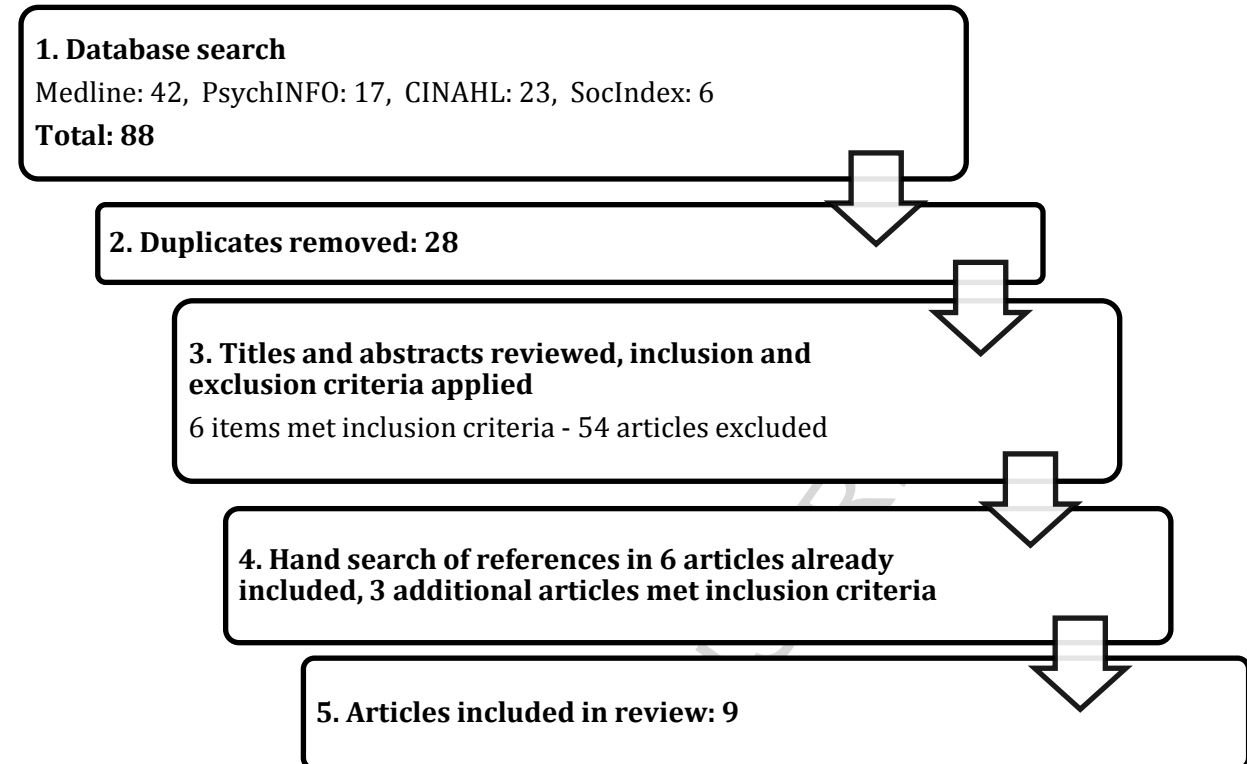
TABLE 1. SEARCH TERMS

	Key concepts	Alternate search terms for concepts, using truncation * and wild cards # or ?
Concept 1	Families	Family Parents Carers
AND Concept 2	Paediatrics	Pediatrics
AND Concept 3	Emergency department	Accident and emergency Resuscitation / resus
AND Concept 4	Care model	Practice guidelines Clinical practice guidelines Protocol/s Care pathway/s Model of care Intervention/s
OR Concept 5	Psychosocial care	Psychosocial intervention Crisis intervention Psychological first aid Communication Support Help Care
OR Concept 6	Critical events	Crisis / crises Emergency / emergencies Social trauma Disaster Crisis intervention Acute stress
OR Concept 7	Social work	Social worker/s

TABLE 3. CONTINUUM OF CARE WITHIN MODELS

Article	Pre-hospital	ED	PICU	Other ward	Discharge planning	Long term care
Curley et al. (2012)		✓	✓	✓		
Farah et al. (2007)		✓				
Guzzetta et al. (2006)	✓	✓	✓			
Kazak et al. (2006)	Considered	✓	✓	✓	✓	✓
Mangurtenet al. (2006)		✓				
Marsac et al. (2014)	Considered	✓	✓	✓	✓	✓
Mian et al. (2007)		✓				
Porter et al. (2014)		✓				
Price et al. (2016)	Considered	✓	✓	✓	✓	✓

FIGURE 1. SEARCH STRATEGY



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FIGURE 2. INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none">• Papers proposing or testing care models, interventions or clinical practice guidelines• Papers including care provided within paediatric (or mixed) emergency settings• Papers published in English• Papers published between 2006 and 2016• Peer reviewed articles	<ul style="list-style-type: none">• Papers not including care of families (e.g. patient only)• Papers focussing on adult-only care• Papers based in other non-emergency department care settings (pre-hospital care, intensive care, general wards or rehabilitation etc)• Literature reviews

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FIGURE 3. MODELS OF CARE

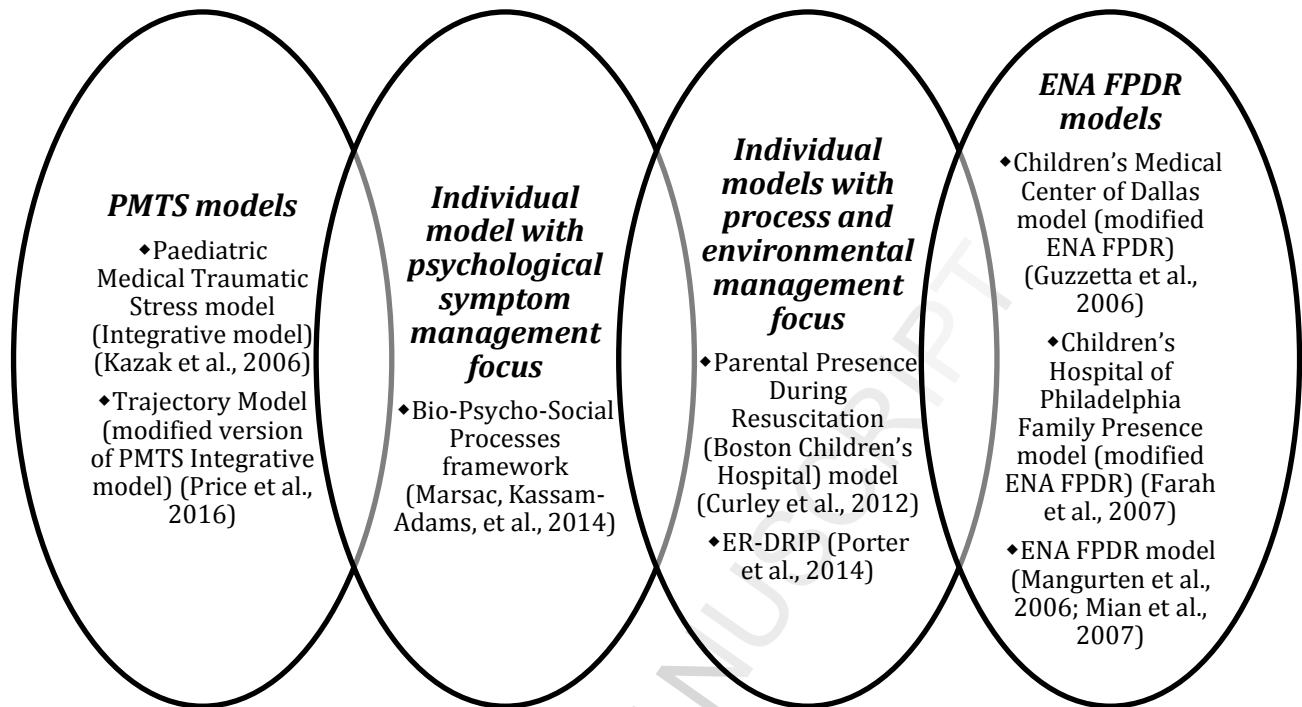


TABLE 2. ARTICLES INCLUDED IN REVIEW n=9

Citation	Location	Model elements	Aims	Design	Sample	Principal outcome measured and recommendations
Curley et al. (2012)	USA	Allocation of trained staff member as "family facilitator" within resuscitation context, description of role and articulation of key tasks. Family preparation, escort, health education, orientation and reassurance/containment focus.	Investigate impact of clinical practice guidelines and staff education on staff comfort with family presence, and family comfort in being present	Mixed methods, multiphase pre and post surveys	538 clinicians, 274 parents	Implementation of education has positive impact on staff comfort and family involvement, promotes family centred care. Recommend use of their model.
Farah et al. (2007)	USA	Family presence protocol, articulation of role and key tasks for both allocated "family support person" and other clinical staff present in resuscitation. Focus on staff safety, family preparation, communication and monitoring, and care of staff and family post-resuscitation.	Provide guidelines for family presence, based on available literature	Descriptive article of family presence model	N/A	Presents family presence model for use in resuscitation by ED staff. Recommend use of their model.
Guzzetta et al. (2006)	USA	Protocol for patient-family centred care during resuscitation, allocation of family support person from clinical staff. Clinical staff and patient safety, family preparation, escort, health education, orientation and reassurance/	Provide guidelines for family presence, based on available literature	Descriptive article of family presence model, literature review	N/A	Presents family presence model for use in resuscitation by ED staff. Recommend use of their model.

		containment focus.				
Kazak et al. (2006)	USA	3 phase model (peri trauma; early, ongoing and evolving responses; longer-term PMTS), goal focussed. Includes consideration of pre-existing psychological wellbeing, developmental considerations, and socio-ecological orientation.	Suggest assessment and intervention frameworks for psychosocial care of patients across care continuum, based on available literature	Practice description using available literature as guide	N/A	Guide for trauma-informed practice in a paediatric setting, including acute care in ED. Recommend further research and use of their model.
Mangurten et al. (2006)	USA	Family presence protocol, based on ENA recommendations and crisis intervention theory; allocation of trained clinical staff member as support person for family. Family preparation, escort and reassurance/containment focus.	Determine effectiveness of family presence protocol and describe family and staff experiences of model use	Mixed methods exploratory study, prospective and retrospective data collection	22 parents and 92 clinicians	Family presence does not interrupt patient care, and is beneficial for parents. Recommend use of their model.
Marsac et al. (2014)	USA	3 phase model (pre-trauma, peri-trauma, post-trauma); considers biological, psychological and social/environmental factors through each phase.	Suggest assessment and intervention frameworks for psychosocial care of patients across care continuum, based on available literature	Practice description using available literature as guide	N/A	Guide for trauma-informed practice in a paediatric setting, including acute care in ED. Recommend further research and use of their model.

Mian et al. (2007)	USA	Family presence protocol, based on ENA recommendations; allocation of trained clinical staff member as support person for family. Focus on safety, including assessing family needs and appropriateness to be present at bedside, communicating family needs to health care team, and escorting family.	Design and implement family presence program, evaluate staff attitudes towards family presence	Mixed methods, 2 group pre and post test	86 nurses, 35 doctors	Despite staff concerns family presence is important; having clear protocols, role clarity and staff education is vital. Recommend use of their model.
Porter et al. (2014)	Australia	Specific 6 point model for family support and communication within resuscitation context; health education, orientation and reassurance/containment focus.	Investigate staff attitudes and perceptions of family liaison role in resuscitation team and use of proposed model	Mixed methods survey	282 nurses and 65 doctors	Staff found ER-DRIP tool helpful for working with families. Recommend use of their model.
Price et al. (2016)	USA	3 phase model (peri-trauma, acute medical care, ongoing care and discharge from care); considers subjective appraisal responses, family traumatic stress symptoms, and assessment and intervention implications through each phase.	Suggest assessment and intervention frameworks for psychosocial care of patients across care continuum, based on available literature	Systematic literature review	N/A	Guide for trauma-informed practice in a paediatric setting, including acute care in ED. Recommend further research and use of their model.