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**Understanding team, interpersonal and situational factors are essential for routine communication with patients in the emergency department (ED): a scoping literature review and formation of the 'T.I.P.S' conceptual framework.**

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## **Abstract**

Millions seek care from emergency departments (EDs) internationally every year. The nature of emergency care means that communication with patients typically occurs in a chaotic, unpredictable and overcrowded environment. Most established healthcare communication skills frameworks focus on interpersonal attributes within the context of a single consultation. In contrast to many other healthcare settings, ED patient encounters consist of many new interactions with different professionals over a short time period. Whilst these factors are recognised to present a major challenge to effective patient-provider communication in the ED setting, there is no unifying theory describing how professionals or teams should approach and optimise communication with patients in the ED. This paper presents a scoping literature review and subsequent thematic synthesis related to routine aspects of patient- provider communication in the ED, and identifies a wide range of facilitating factors and obstacles to routine communication. By focussing on the emergency setting, this review identifies team and situational factors as equally important and suggests a new conceptual framework to guide better communication in the ED. The T.I.P.S (*Team, InterPersonal, Situational*) framework may be utilised to evaluate local strengths and vulnerabilities, identify training requirements for all groups of health professionals involved in emergency care, and ultimately improve patient experience and outcomes in the ED.

## **Introduction**

Increasingly, communication in healthcare settings is characterised by short, 'task driven' consultations with multiple providers.<sup>1</sup> This is particularly so in the emergency department (ED) setting where providers are faced with simultaneous new patient encounters, a busy and chaotic environment, and the need to make important and critical clinical decisions with limited information. Whilst these factors are encountered on a daily basis, what constitutes optimal patient-provider communication in the ED is uncertain and no unifying theory yet exists. Nonetheless, communication is often a critical factor in the planning of investigation, treatment and onward

management for patients who access emergent healthcare. As such, the need to better understand communication processes in the ED is imperative for patient safety and clinical effectiveness.

Communication that is perceived as poor by patients is consistently demonstrated as a major source of complaints<sup>2,3</sup> and improving communication may enhance overall patient satisfaction and reduce litigation.<sup>4,5</sup> When questioned, patients express clear expectations of the quality of communication they desire in the ED, including the use of plain language, rationale of tests, explanation of results and discharge instructions.<sup>6</sup>

Given the unique clinical context in which emergency care is practised, existing models of patient-provider communication, such as those derived in primary care or outpatient settings, may have limited validity in the ED. A more specific approach, tailored to the emergency setting may be necessary.

## **Aims**

This scoping review aims to identify the current literature and synthesise a new generic framework to enhance understanding of routine patient- provider communication processes in the ED. For the purpose of this review, 'routine' communication relates to everyday dialogue with patients—for example, history taking and communication of management plan and disposition. It does not include situations where a specific approach may be needed, such as clinical handover or breaking bad news.

## **Methods**

A literature search was conducted using Scopus, Medline, EMBASE and CINAHL using the terms ((communication OR consultation OR health literacy) AND (patient) AND (emergency medicine OR emergency department).kw,ti,ab).

*Inclusion criteria*

To ensure relevance to current practice, the search was limited to articles written between January 2000 and February 2016. Potentially relevant titles were retrieved and abstracts appraised for the relevance of aims and objectives to routine communication in the ED, quality of methodology , analysis and discussion, and value of the research to practice. Assessment of primary research was guided using a relevant Critical Skills Appraisal Programme (CASP) checklist where possible.

Abstracts felt by the authors to demonstrate the potential to inform or change practice in emergency care were selected for full review, and those for which discrete factors could be identified as facilitating factors or obstacles to communication processes were included in the final synthesis.

*Exclusion criteria*

Articles were excluded if they were published prior to January 2000, not published in indexed journals (e.g. conference abstracts), conducted outside of the ED or exclusively in paediatric ED populations, not published in English or unavailable in full text form. Literature relating to very specific aspects of ED communication such as patient handover, end of life care, breaking bad news and inter-professional communication were considered beyond the scope of this review.

**Results**

Three-hundred eleven potentially relevant titles were identified. Eighty abstracts were assessed for potential inclusion of which twenty-six did not meet the inclusion criteria. Fifty-four articles were selected for final inclusion (table 1), utilising a wide range of methodologies (table 2). Papers most frequently originated from the United States (29), the United Kingdom (7) and Australia (6).

**[Table 1 about here] [Table 1: Search Strategy]**

**[Table 2 about here] [Table 2: Included articles—summary of methods]**

### *Synthesis*

A qualitative synthesis was conducted. Themes within articles interpreted as either facilitating factors or obstacles were identified and coded by an academic emergency physician (BG). Facilitating factors were defined as those interpreted as likely to improve or enhance routine patient- provider communication, whilst obstacles were those interpreted as likely to impede or undermine communication. Nine facilitating factors and ten obstacles were identified and grouped into three overarching themes which were *Team*, *InterPersonal* and *Situational* factors, forming the new proposed 'T.IP.S' framework for communication in the ED (table 3). It is proposed that this framework may be used as a foundation to guide training and development of ED staff in communication skills.

**[Insert Table 3 about here] [Table 1: Results of the Synthesis—Facilitating factors and Obstacles compromising 'T.IP.S', a new conceptual framework for communication in the ED. ]**

### **Discussion**

#### **Team Factors**

The ED patient journey is characterised by multiple interactions over a short space of time. This is reflected in the identified literature relating to team based communication.<sup>7-9</sup> Major facilitating factors to team based communication were optimising team behaviour, identification of ideal

processes, and the need to evaluate team based communication Obstacles were negative team behaviours, interruptions and delayed communication.

*Optimising team behaviour.* Henry et al conducted qualitative interviews with subject matter experts (n=6), patients and caregivers (n=25), revealing that patients were both critical observers of team communication processes and that perceptions affected views of team effectiveness.

Specifically, negative team-related behaviours, such as internal team conflict or a lack of respect between team members increased patient anxiety and reduced patients' confidence in treatment efficacy and concordance with discharge instructions. The authors noted that negative team related behaviours observed in the ED may affect patient interpretation of team interactions downstream .<sup>7</sup>

Abourbih et al outlined pragmatic strategies to facilitate inter-professional communication. This includes the use of personal introduction, assertive communication and sharing learning opportunities. Simple interventions to improve team communication may improve care processes.<sup>8</sup>

*Identification of ideal team communication processes.* Understanding what constitutes ideal team behaviour may be essential for identifying vulnerabilities and improving processes. Mazzocato et al used mixed methodology to observe teams in a Swedish ED during an exercise to plan ideal communication processes and then implement changes in practice. The study noted that real world communication practices substantially deviated from those defined as ideal during the planning phase. In practice, team members frequently interrupted each other and failed to take shared histories, both of which were originally deemed as highly desirable. Although formalisation of team processes are essential to improving communication, actually doing so may necessitate cultural reform and refinement.<sup>9</sup> In their systematic review of teamwork and communication in the emergency department, Kilner et al concludes that optimisation of team communication has the potential to improve both patient and staff satisfaction, reduce errors, and reduce access block, suggesting that these effects may potentially be achieved through staff training and the

introduction of new team structures, such as multidisciplinary rapid assessment and treatment teams.<sup>10</sup>

*Formal evaluation of team based communication.* It has previously been demonstrated that use of communication skills evaluation tools may yield insights into the performance of an individual professional group in the ED such as nursing staff.<sup>11</sup> However communication assessments limited to single interactions in the ED are likely to be reductionist and may not accurately represent overall patient experience. Team based scores, such as the Communication Assessment Tool- Team (CAT T) are a compelling alternative and have may be used to identify discrete areas of excellence and vulnerability.<sup>12,13</sup> Mercer et al used the CAT T in a tertiary US ED and identified 'greeting the patient appropriately', 'showing care and concern' and 'interest in the patient's ideas about their health' as particular areas needing improvement.<sup>12</sup>

### **Provider Interpersonal (IP) Factors**

The bulk of literature identified for this review focusses on interpersonal (IP) skills and clinical consultations with patients. An earlier literature review on the topic by O'Gara and Fairhurst identified strategies to enhance the quality of the emergency consultation and identifies questioning style, listening and noticing, communicating empathy, establishing the patient's concerns and closing the consultation as the core themes. This was however from work derived in a range of settings outside of the ED including primary care.<sup>14</sup> Whilst supportive of these findings, contemporary research specific to the ED settings suggests that the key facilitating factors for provider IP skills are personal behaviour and bedside manner, clinical consultation skills, management of patient distress and anxiety, and embracing novel ways of working. Failure of caregivers to accommodate patient questions and the use of contextually inappropriate language are key obstacles.

*Personal behaviour and bedside manner.* Recurring facilitating factors included personal introduction by name and role<sup>15,16</sup> and qualities including friendliness, courtesy, respectfulness, compassion and



kindness.<sup>13,17-19</sup> Empathy is widely regarded as a crucial component of provider- patient communication, and was evaluated in an ED setting by Lin et al used semi structured interviews. The study found that EPs were reluctant to resonate with patient concerns, tended to focus predominantly on physical discomfort and did not reflect on whether patients had received empathy from them. The researchers noted that ability to empathise was affected by environmental factors, and suggested educational strategies to foster a climate of humanism.<sup>20</sup> Taken together, these features describe bedside manner which is traditionally recognised to form the cornerstone of patient-provider communication.

*Clinical consultation skills.* In addition to personal traits, appropriate structure of consultations is essential to facilitate professional relationship building and decision making. Primary care physicians are commonly regarded as experts in consultation skills, in contrast to emergency medicine where this topic traditionally receives less attention. To this end, a comparative study by Bolton and Mira observed differences in communication between Australian Emergency Physicians (EPs) and General Practitioners (GPs). GPs tended to provide more advice, information, support, and encourage patient self-empowerment than Emergency Physicians.<sup>21</sup> A separate observational study by Dale et al lends insight into changing communication practices amongst EPs and GPs in one UK ED between 1990 and 2005. Activating and partnering with patients increased in all groups over the period, but only GPs increased the amount of talk centred on patient education and counselling (OR 2.8 95%CI 1.4—5.3). These findings are in-keeping with an increasing educational emphasis on delivery of patient-centred care in the UK, although the authors note that there is scope for further improvement amongst EPs. Although insightful, this study is limited to consultations for primary care problems, and does not lend insight into communication with higher acuity patients in the ED.<sup>22</sup>

Emergency clinicians may find themselves under particular pressure see and treat large numbers of patients during a shift. Dean and Oetzel combined in depth interviews with direct observation of

EPs, and used relational dialectics theory to determine opposing demands in emergency communication. Conflicts were recognised between the residents' perceived need for efficiency with ensuring appropriate rapport with patients and comprehension of the history. It was noted that some residents had a tendency to emphasise their agenda within a consultation in order to achieve efficiency.<sup>23</sup>

Communication of findings, particularly risk, forms an important part of many consultations. Matched physician/patient pair surveys (n=425) were issued by Newman et al to assess the communication of risk by emergency physicians to patients experiencing chest pain. The majority of patients reported that their perception of risk of myocardial infarct (MI) did not change after consultation with the doctor. Patients' perception of risk of MI whilst in hospital was higher than physicians (80% vs. 15%). Risk agreement within 10% occurred in only 36% of cases.<sup>24</sup> This may indicate the need to improve communication of risk within ED consultations.

*Patient distress and anxiety.* In the ED, acute unanticipated injury or illness may lead to significant anxiety and uncertainty amongst patients. Questionnaires distributed by Body et al from one UK centre confirms that emotional distress and anxiety contributed to patient suffering alongside physical pain, and that prompt diagnosis, reassurance and explanation—in addition to analgesia and the treatment of physical symptoms—were important facilitating factors for the relief of suffering.<sup>25</sup> Ekwall demonstrated that objective assessment of anxiety using a visual analogue scale may have the potential to facilitate better communication by allowing clinicians to identify unanswered questions or points needing clarification.<sup>26</sup>

*Embracing novel ways of working.* Non-physicians are increasingly adopting roles in the assessment and management of patients in the ED. As Non physicians may come from a range of backgrounds, they may employ communication styles which differ from the traditional biomedical model. Understanding and embracing a different strategies for communicating with patients in the ED may improve IP communication throughout the ED team. Sandhu et al compared 296 video

consultations led by GPs, EPs or Emergency Nurse Practitioners (ENPs). The number of utterances related to patient education and counselling were significantly greater for GPs (Mean 38.1) and ENPs (33.2) than EPs. Utterances from less experienced EPs was lowest overall (13.6). Additionally, the study noted that senior EPs were most likely to criticise or disapprove of patient statements (mean 2.6) versus ENPs (mean 0.41). Whilst it is unclear from this study whether these factors are to the detriment of patient experience, overall satisfaction with ENP consultations was greater than with EP consultations. Within the context of the T.I.P.S framework, this work highlights that there may be differences between the communication styles of different groups of clinicians in the ED and may indicate a benefit of interdisciplinary training.<sup>27</sup>

Emerging and novel models of emergency care, such as the use of rapid assessment and treatment teams may improve patients' experiences of communication. Cronin and Wright describe the introduction of one such team in a UK ED. Although their evaluation is reflective, they note benefits for communication with family and patients.<sup>28</sup>

*Failure to accommodate questions.* Failure to accommodate questions may cause patients to become frustrated, dissatisfied and more anxious. Vashi and Rhodes conducted a content analysis of audiotaped ED discharge instructions (n=844) in two EDs. Although patients were often given the opportunity to ask questions (91%), these were of minimal quality.<sup>29</sup> Excessive use of closed and leading questions are noted within two additional observational studies of ED consultations.<sup>30, 31</sup>

*Contextually inappropriate language.* The use of complex and contextually inappropriate language is synonymous with suboptimal provider IP communication. One prospective observational study conducted in a single ED consisting of simulated consultations (n=26) found that physician language complexity exceeded that of patients. Physicians were also verbally dominant.<sup>32</sup> A patient survey conducted in a UK ED (n=100) assessed understanding of the terms used to describe a simple fracture and demonstrated that the term used by the clinician influenced patients' perceptions of

severity. This suggests that EPs should not only carefully consider the general complexity of language, but also the context in which vocabulary is used.<sup>33</sup>

### **Shared IP Factor—Mismatched expectations**

Any mismatch in expectations between providers and patients has potential to adversely affect communication. This was identified as a unique ‘shared’ obstacle to IP communication within the T.I.P.S framework, and is likely to become an increasingly important issue as healthcare becomes more consumer oriented, yet systems become increasingly resource constrained.

The concept of mismatched expectations as an obstacle to communication is presented by Young and Flower in six detailed interviews with ED patients regarding communication. Areas where miscommunication and misunderstanding between providers and patients occurred included the meaning of key terms, framing of the immediate problem, and the perceived role of the ED in serving the individual. The authors recommend that a collaborative approach to consultation may improve communication by allowing providers to frame patients’ problems in their life context.<sup>30</sup>

The same study also recognises staff frustration about the ED being accessed for low acuity problems. Nonetheless, patients may be adept at perceiving such frustration, particularly if frustrations are perceived as being directed towards them.

Scheeres et al also recognise mismatches between the communicative aims of patient and practitioner as a barrier to communication, highlighting a lack of attention on patient concerns and a dominant ‘doctor’ script to the consultation that emphasises the ‘medical and institutional priorities of the ED’ as opposed to patients’ perceived needs.<sup>34</sup> In a year-long qualitative evaluation of team communication and decision making processes in the ED, Eisenberg et al found a tendency for physicians to prioritise their need to develop actionable lists based on rational analysis of the information presented to them, and a tendency for this to take priority over the patient’s narrative.<sup>35</sup>

## **Patient IP factors**

Clinical communication skills models traditionally tend to focus on provider interpersonal factors, although patient factors may be equally important. The most notable factor is health literacy, for which there is an emerging body of evidence relevant to the ED. Additionally, language barriers were identified as an obstacle. With increasing international migration occurring this is an acutely relevant issue.

*Unfamiliarity with the ED.* In their ethnographic discourse analysis of talk between emergency physicians and patients, Scheeres et al note that patients are outsiders to the ED and may not understand ED processes, institutionalised language and patterns of behaviour. Staff may find it difficult to meet patients' communication needs in the time-pressured setting of the ED. Educational interventions, including staff training and specific language training may help overcome these obstacles.<sup>34</sup>

*Health Literacy.* Health literacy (HL) is defined as "the degree to which individuals have the capacity to obtain, process and understand basic information and services needed to make health decisions".<sup>36</sup> Whilst enhancing patients' level of HL within the context of a short ED encounter may be difficult, recognition of impaired HL is essential to facilitating appropriate communication, aid patient decision making and enhance adherence.

Karsenty et al observed consultations (n=71) and found that newly qualified physicians frequently exhibited communication beyond patients' health literacy . Specialist terms and jargon were used in the majority of encounters (68.2%) and explained on only 21% of occasions. Acronyms and abbreviations were also frequently mentioned (39%).<sup>37</sup> 'Teach Back' was not utilised on any occasion, but has since been demonstrated in a randomised controlled study amongst patients with low health literacy to significantly improve comprehension of post-ED care .<sup>38</sup> Vashi demonstrated

that understanding of verbal instructions was confirmed in only 22% of 834 consultations, and that only 34% of patients received instructions in case of deterioration.<sup>29</sup>

Jordan et al assessed HL abilities and requirements amongst forty-eight adults who had recently accessed a metropolitan ED. Positive patient attributes included assertiveness, general literacy, and the capacity to process and retain information from the consultation.<sup>39</sup> Fear and anxiety, use of jargon and the method of delivery of information were obstacles to patient understanding.

The utilisation of brief HL screening as a means to improve communication with patients in the ED has intuitive appeal, and may help guide discussions with patients. Kiechle et al examined six such measures specific to patients attending a single suburban ED (n=400). The study demonstrated significant heterogeneity between different scores—for example, 92.5% of patients were categorised as having appropriate health literacy using one measure (*Short Test of Functional Health Literacy in Adults (S-TOFHLA)*), reduced to only 52% using another (*New Vital Sign (NVS)*).<sup>40</sup> Nonetheless, the authors asserted that a low score in any instrument was independently associated with worse health status. A systematic review exploring thirty-one US articles relating to health literacy and ED outcomes notes that patients with reduced health literacy may be at increased risk of attending the ED and may be associated with higher healthcare costs. The authors give pragmatic recommendations for improving communication, including elimination of jargon, use of short sentences and visual illustrations.<sup>41</sup>

*Language barriers.* Language barriers may render effective communication challenging or even impossible. The role of professional interpreters as a facilitating factor was clearly identified in an RCT which revealed that satisfaction with communication was significantly higher in the professional interpretation group (96% vs 24%). Increased staff satisfaction was also reported.<sup>42</sup> In a study of patients presenting with chest pain to a London ED, language obstacles were noted to lead to ‘frank miscommunication’ and increase the likelihood of clinical adverse events.<sup>31</sup> Numeroso et al invited Italian EPs to complete a survey following consultations with migrants. Respondents (n=21

physicians; 479 questionnaires) revealed language barriers in 56.6% of cases and the use of an external translator in only 0.4% of cases. Immigrants were rated by physicians as having 'full comprehension' of instructions following only 58% of encounters. The authors highlight that the elderly immigrants may be at particular risk of poor comprehension.<sup>43</sup>

### **Situational factors**

The ED setting may present difficult situations which can make effective communication with patients challenging. Facilitating factors include the role of information provision, whilst suboptimal physical environment may form an obstacle.

*Information provision.* The availability of information regarding ED systems and processes may affect all parts of the patient journey. Focus groups conducted by Stuart et al amongst an Australian population revealed that information about waiting time on arrival was regarded as important by patients, and that there was a desire for written information specifically explaining the process of the ED journey.<sup>44</sup> A survey study in an Italian ED using the Consumer Emergency Care Satisfaction Scale (n=249) determined that the only factor (out of a total of 19) to be significantly associated with improved patient satisfaction was "receiving continuous information from personnel about delay" (OR=7.22; p=0.02).<sup>45</sup>

The provision of written discharge information was identified as a potential facilitating factor to communication in multiple studies.<sup>46-48</sup> Nonetheless, providers should be mindful that understanding may be poor, and was demonstrated as less than 50% in one series of qualitative interviews of patients recently discharged from the ED (n=36).<sup>49</sup> Simmons et al investigated the use of a written communication instrument to improve patient comprehension of ED treatment and the effect on satisfaction. The study failed to demonstrate this intervention improved either satisfaction or comprehension of instructions, although did demonstrate that comprehension was especially reduced in the elderly.<sup>50</sup> A review article by Engel et al highlighted that language complexity in

common ED discharge instructions (9<sup>th</sup>-10<sup>th</sup> grade; age 14-15) exceeded prior recommendations to meet the needs of a diverse patient population (6<sup>th</sup> grade; age 11-12). Pragmatic recommendations include verbal reinforcement of information, checking understanding, and practical demonstrations where appropriate.<sup>51</sup> Length, conceptual complexity, and visual presentation of discharge instructions were presented as potential methods to enhance information provision in Sandhu's comparison of different staff groups.<sup>27</sup>

In light of the increasing proportion of ED attendances from elderly and frail patients, transfer of information from long term care facilities now forms an essential component of routine ED communication, especially in the presence of cognitive impairment. A prospective analysis of patient transfers from nursing homes to Canadian EDs by Cwinn et al (n=457) determined that important information gaps occurred in 85.5% of cases. Omissions included reason for transfer, cognitive/communication ability, and medications. Thirty-four percent of patients in this study had a formal diagnosis of dementia, highlighting the importance of ensuring information transfer from such settings.<sup>52</sup> Initiatives to enhance information transfer between nursing homes and the ED may lead to significant improvements.<sup>53</sup>

*Suboptimal environment.* Excessive ambient noise in the ED was identified as a recurrent theme. One noise study conducted in a major US ED found that sound levels exceeded those found in other inpatient areas, and that sound levels were sufficiently high on average (61-69dB) to raise concerns about the potential for noise to contribute to errors.<sup>54</sup> These findings were replicated by Short et al in an Australian ED, which recorded average noise levels as being between 55.8-64.0dB. Although staff in this study reported difficulties with communication as a result of high ambient noise, a lack of motivation or strategies to effectively reduce this problem was noted.<sup>55</sup> An additional survey conducted in the US by Graneto and Damm determined that ED nurses did not seem to be troubled by routine noise levels in the ED although the effect on other professional groups and patients was not explored.<sup>56</sup>



High workload intensity and overcrowding is synonymous within many ED settings, and may adversely affect communication. The year-long qualitative observational study of patient-provider communication in the ED by Ekwall identified overcrowding as an obstacle to decision-making during triage.<sup>26</sup> Qualitative interviews (n=30) conducted in an Iranian ED revealed 'tumultuous atmosphere' as a major barrier to communication in the ED. The major situational features underlying this were overcrowding, a stressful atmosphere and poor management, including lack of proper feedback and inconsistent supervision.<sup>57</sup>

### **Interventions to improve ED communication**

Three studies were retrieved relating to interventions aimed at improving communication skills in the ED. Lau et al evaluated the impact of one day communication skills workshops aimed at medical officers in Hong Kong. A reduction in the proportion of complaints relating directly to interpersonal or communication problems was observed after the workshop intervention (42%; p=0.05), despite a corresponding increase in attendances over the study period. Analysis of patient satisfaction questionnaires before (n=633) and after (n=480) the intervention demonstrated a corresponding increase in satisfaction with the attitude of doctors (88.3% pre-intervention versus 98% after) and level of information provided (93.8% versus 98%).<sup>58</sup> Lloyd et al conducted direct observation of junior doctors' consultations (n=40), including individualised feedback on performance. Common weaknesses were identified, including the use of closed questions, jargon, poor negotiation and information giving, and inadequate explanation of patient thoughts and concerns. Participants reported that involvement in their study encouraged reflection and behaviour change, although the authors did not formally measure the extent of this.<sup>59</sup>

Cameron et al conducted interactive workshops with a range of clinical and non-clinical staff to determine barriers to communication in the ED. As well as the identification of facilitating factors and barriers to communication, a range of ED staff were asked to suggest system-based interventions and suggest best practices. Discussions during small group exercises were coded to

reveal four themes (greeting and initial interaction, setting expectations, team communication and information provision). A range of resultant system-based interventions were suggested for each theme—for example, clearly displaying wait time information in the waiting room.<sup>60</sup>

## **Summary**

The need to better understand and improve ED communication is exemplified by the diverse range of literature identified as part of this review. This review advances overall understanding of communication in the ED beyond the domain of interpersonal skills, to identify teamwork and situational factors as equally important contributors to patient experience and clinical care. The essential message of this review is that successful ED communication processes do not hinge on any one encounter with a single provider, but are instead the product of overall interaction with the entire ED team, situation and physical environment. This differentiates communication in the ED from settings such as outpatient or primary care settings where a single meaningful encounter per visit may be the norm. As such, the adoption of traditional models of communication derived from these settings may fail to improve experiences for patients in the ED.

This review also emphasises the importance of recognising patient attributes. Further work exploring how patients can be empowered to engage in optimal communication in the ED, particularly with regard to health literacy, is warranted.

The next step is to establish the validity of the T.I.P.S model to guide real world patient-provider communication in the ED. This will represent the first major attempt to conceptualise communication practices in the ED setting using an evidence based approach.

## **Limitations**

This is a scoping review of the most recent literature on the topic of routine patient-provider communication specific to the ED which has resulted in a framework with pragmatic relevance to clinicians practising in emergency medicine. Only articles published within the past ten years are

included, in recognition of the rapid evolution of emergency medicine as a speciality and to ensure relevance of the framework. It is possible that some relevant literature pre-dating this period may have been missed. Future expansion of the review to include papers not published in English, and research conducted in other allied clinical areas may yield further insights. Although beyond the scope of this review, it is recognised that discrete communication processes such as clinical handover, breaking bad news, and inter-professional communication are essential to providing safe and effective patient care in the ED. Determination of how these processes influence routine communication and patient experience in the ED, and how they may further inform communication skills frameworks such as T.I.P.S is necessary.

Due to the wide range of factors influencing communication in the ED, it has been necessary to include a wide range of studies encompassing different methodologies in order to construct a valid conceptual framework. Most of the identified research was conducted on a small scale in single centres. In practical terms, there may be limited scope to directly modify some of the areas identified in the review, although general awareness of such factors (e.g. ambient noise) remains important for clinicians when communicating with patients.

Further work is required to assess the validity of the T.I.P.S framework. To assess validity, a Delphi analysis of subject matter experts and primary observational research is being planned. In the meantime, individual providers and organisations may benefit from considering how the factors identified in the T.I.P.S model may influence routine practice.

## **Conclusion**

Achieving optimal patient- provider communication in the ED is only likely to be possible if situational and wider team behaviours are also addressed. T.I.P.S is the first integrated model for patient-provider communication in the ED to take these factors into account. There is a need to

create and evaluate reliable evidence-based interventions to guide quality improvement in ED communication practices based upon this.

### **Contributor ship**

BG and JS conceived the idea for the review and edited the discussion and analysis. Additionally, BG undertook the literature review, coding and synthesis, and devised the T.I.P.S framework.

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