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A Patient Driven Approach to Patient Safety Interventions

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Abstract

Patient safety remains an important issue within healthcare delivery in the United States. Medical errors account for about 25000 to 400000 deaths, much more morbidities and a significant cost burden each year. Despite several interventions in the last decade, rates of adverse events have been slow to change. Healthcare providers believe that patients have significant roles to play in patient safety. Patients have a positive intention to participate in patient safety interventions. However, patients' intention to participate in patient safety does not significantly align with their behavior. Most available interventions are based on empirical evidence and incompletely applied theories and models of health behavior. This resulted in inadequate outcome of a behavior change. This article seeks to present a complete health belief model as a suitable model for adopting interventions that enhance patient independence in communication to enhance patient safety. This aims also bring forward patients concerns early while preserving patient doctor relationship.

Keywords: Patient-safety; Quality-improvement; Medical-errors; Interventions; Healthcare safety; Health belief model

Introduction

Patient safety remains an important issue within healthcare delivery in the United States. Since the Institute of Medicine "To Err is Human" report, by different estimates, medical errors account for about 25000 to 400000 deaths each year [1-6]. This does not include significant morbidities and cost burden that are often inconspicuous. Despite several interventions in the last decade, rates of adverse events have barely changed [6]. The very limited data on the role of patients in enhancing patient safety practices, suggests that most patient safety interventions have not significantly targeted patients [7]. Thus, providing opportunities that could be explored to achieve vital patient safety goals. One fundamental goal of improved patient safety is enhancing effective communication [8]. Not only will effective communication strengthen team effort in healthcare delivery, it also brings forward patients concerns. Inadequate communication between patients and providers, has been repeatedly identified to be associated with medical errors by several studies [9-12]. These informed the Joint Commission "Speak Out" campaign for patient to play active roles in adverting medical errors. Assessing the mechanisms driving hospitals to reduce medical errors, Devers et al. compared professionalism, regulation, and market forces, the joint commission initiative. They found that the Joint Commission initiatives had the most significant effect [13]. The Joint Commission "Speak Out" campaign was evidence based interventions with incomplete theoretical application. However, more has to be done to ensure that broader predictors of patient - provider communication are taken cognizance of and full behavioral theory is adequately applied.

Despite adequate knowledge about issues such as adverse drug event, many patients may not have a concise drug list. Even with adequate knowledge about the many benefits of hand washing, some doctors may not wash hands after meeting with patients [14]. These are important reasons behavioral interventions must not only be evidence based but also be fully rooted in behavioral theories where all constructs of a model are utilized. This is because the aim is to enhance potential for interventions to be internalized as part of patient's behavior. Evidence suggest that when behavioral change is achieved, internal locus control is stronger, making interventions more successful [15,16]. Where do hospitals and providers stand in adopting a truly patient centered approach by enhancing communication for preventing medical errors? There must be willingness to go the extra mile and be more transparent about information on patient safety in such a way that help shape desired belief system in patients. Health care providers commonly disseminate advisories that inform patients how they can avoid errors and harms in their care. Impact of this practice is hardly evaluated and more importantly, inadequate attention is paid on patients' perceptions while developing these messages [17]. However, Bishop and Mcdonald assessment of the use of informative advisories aimed at increasing patient awareness of patient safety, concluded that this strategy may not be adequate [18].

Skagerström et al. interviewed nurses in a hospital in Sweden to assess their perception and experiences of patient involvement in patient safety. Data obtained revealed a significant belief that patient safety initiatives should begin with initiating dialogue with the patients [19]. In a systematic review Schwappach et al. found that patients share a positive attitude about engaging in their safety, but their intentions and actual behaviors are considerably inconsistent [20]. A Patient Driven Approach to Enhancing Patient Safety seeks to present a complete health belief model as a suitable model for adopting intervention designs that enhance patient communication for prevention of medical errors. Evidence suggests that involvement of patients in safety may be successful if interventions promote complex behavioral change and are carefully implemented (Figure 1) [20].

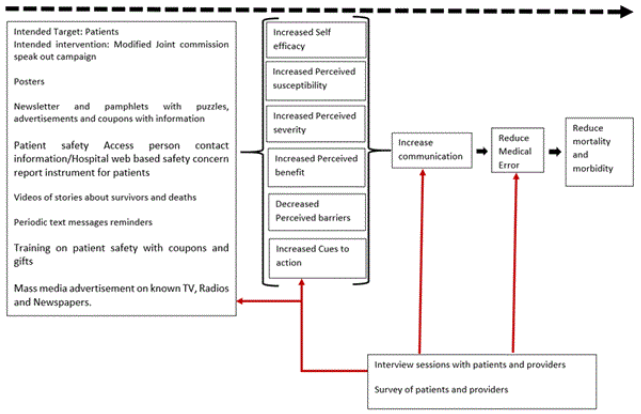

Figure 1: This precedes proceed model illustration of the intervention.

Discussion

The Health Belief Model (HBM) was originally set up to target preventive health behaviors; however, it has been used successfully for initiative that are not purely health related [21,22]. The HBM has been used successfully in areas such as mass media and public health communications [22]. The HBM assumes that people are likely to adopt a behavior (example "speak out") if they perceive that (a) they are highly susceptible to a condition; (b) the condition is potentially severe; (c) the behaviors are beneficial and will avert the condition; (d) the behaviors have few barriers; and (e) they are cued to perform the behaviors [23,24]. Perceived benefit refers to what one feels will be the gain of performing a behavior. Perceived barrier refers to the potential obstacles to adopting behavior, perceived susceptibility refers to the perception of the risk that a condition could happen to them. Perceived severity has to do with feelings of how severe outcomes could be if the condition occurs. Subsequent studies led to the addition of self-efficacy to the Health Belief Model. This was based on the finding that with high confidence in one's ability to perform a behavior (self-efficacy), perceived barriers could be overcome [25]. While exploring patients' and family members' experience and views about speaking up about safety concerns at point of care in their research, Eintwistle established that the inclination and ability to speak up were significantly shaped by their assessments of the enormity of the threat of harm, the relative importance of their concern and priorities, their confidence about the basis for concern, roles and responsibilities and the likely consequences of speaking up [26]. This finding captures some important constructs of the health belief model as being effective in healthcare safety interventions.

One of the drawbacks of HBM remains its complex and ambiguous construct alignment that have defeated most attempts to define its mechanism. Meta-analysis on HBM mechanism has yielded inconsistent results [27]. Irrespective of the mechanism-parallel mediation, moderated mediation or serial mediation, to achieve better outcome, it is best to assume additive impact of constructs of the health belief model [28-30]. This is because it is difficult to predict which construct would have the most significant impact. In some evaluations perceived barriers, severity and benefit were found to significantly predict behavioral outcome, while in others cues to action and self-efficacy had significant effect [29]. Despite these findings, cues to action and self-efficacy are most often excluded in program [31]. In its simplest form, the first step is to perceive that a condition is probable. Many patients still do not conceive that significant error can occur in the healthcare setting today. They perceive the hospital as a place to seek solution and not a place to encounter safety issues that can cause significant mortality or morbidity. A transparent presentation of the frequency of medical error in healthcare to patients would increase perceived susceptibility. It is when perceived susceptibility is in place that it is probable for one to be concerned about the severity of medical error with potentials for mortality and grieve morbidity. The consequence of a high perception of susceptibility and severity is a belief that behaviors that prevent the medical errors are beneficial. It is obviously beneficial for patients to communicate any concern about their safety. However, the means should be provided and process simplified.

Patients could be concerned about relationship with their providers. A patient could be right to believe that providers have extensive knowledge about their health; thus, causing a patient to be apprehensive in questioning their provider about their concern. A patient may not remember to share concern about safety [32]. The hospital is usually perceived to be a very busy setting and patients may be unaware of adverse event reporting systems even where they may exist [33]. These are various forms of barriers that hinder effective communication between patients and healthcare providers and initiatives that aim to directly reduce these barriers should be explored. In addition, when patients are presented with short video clips of survivors who "spoke out" and prevented adverse events, their confidence is further strengthened to overcome potential barriers. These may ultimately lead to performing the desired behavior. This is further stimulated by reminder posters and text messages that encourage the patient. This simplified mechanism was studied extensively by Strecher, & Rosenstock review of several articles that studied the health belief model [30]. Even with knowledge that the strength of behavioral theories is strengthened when all constructs are used, cues to action is a rarely applied construct [34]. Cues to action are simple motivational reminders, internal or external, prompting desired behavior [35]. Where there are potential barriers to "speak up" such memory, concern about doctor patient relationships etc., cues to action like self-efficacy is helpful [25]. Cues to action would highlight the patient centered approach to addressing medical errors and other patient safety issues by heightening the sense of involvement and personal relevance [36]. Internal cues are usually symptoms which patients have been educated to discuss safety when the symptoms occur [27]. The gap between knowledge and desired behavior are further bridged when active reminders such as posters and repeated text messages are part of intervention designs.

Mass media plays important role in optimizing external cues to action. This is because mass media is effective as an informative tool across many issues including health conditions [37]. Many health interventions in mass media are positive advertisements of products. Moynihar et al. reviewed the patterns of media coverage of health interventions and products comparing benefit, risk, cost and adverse events [38]. This study revealed that over 50% fail to clearly mention potential harm to patients [38]. With respect to medical errors, effort must be geared towards taking advantage of the media to present clear information about patient safety issue and how patients can be directly involved. More importantly, this would also serve as a reminder that medical error is an issue a patient can play salient roles. Giving patients a voice in issues concerning their safety is very essential. One of the ways of reducing barriers to patients speaking up for their safety is

ensuring adequate access to the hospital patient safety team in a way that does not adversely affect patient doctor relationship. A well-publicized web based instrument for reporting concerns about safety, medical error or adverse events by patients, relatives of patients and public can enable hospitals pick up patterns, and predictors that inform policies. Web based electronic information gathering from patients may result in early detection of medical errors while preserving patient doctor relationship [39,40]. In an article on the missing voice of patients in drug safety reporting Ethan Bash opined that not only should patients be able to directly report events, these entries should be evaluated and reports generated to capture subjective elements of patient safety and build confidence of patients [41]. That such Web based approach is way too subjective is debatable, however it is certainly an important source of patient safety needs assessment for a refined future intervention.

Conclusion

For medical errors, the future should strive to persevere on the path of absolute transparency. This would adequately shape patients' belief system, and drive patients to be more proactive in contributing solutions to a condition (Medical Error) probably responsible for the third leading cause of death in the United States. Considering the slow pace of progress made so far, the aim of patient safety interventions should be to detect and modify any opportunity that leads to safer outcomes. Since healthcare providers express strong belief that patient safety interventions should accommodate patients' views, obtaining patients subjective input through increased communication is a good place to start. Interventions aimed at increasing patient participation in patient safety must have sound theoretical basis capable of changing complex behaviors to ensure better outcome.

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