Human-Centered Design

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Human-Centered Design (HCD) is more than just a framework of thinking and problem-solving. It is a realistic approach that is concerned with the human perspective at every reason for burnout and attrition related to bedside nursing. Critical care nurses are much more effective at bedside care when burnout and attrition are handled by getting to the root of the problem as opposed to ignoring the emotions, relationships, and values this career demands.

Description and Connection to Nursing

Healthcare providers undergo some of the most difficult demands a job can offer. In a 2018 report, one-third of nurses said the main reason for leaving the healthcare profession was due to burnout (Sherman & Bordeaux, 2021). These individuals suffer a great deal of stress that leads to attrition, burnout, and ultimately ineffective patient care. Some of the stressors include heavy workloads, less than adequate staffing, long hours, and impeding autonomy (Sherman & Bordeaux, 2021). Nursing is already a difficult career due to the emotional nature of it. With additional workplace obstacles in place compounded by the growing healthcare needs of today, the average nurse is becoming flattened by the modern-day demands of society. Eventually, this leads to many nurses leaving their profession and hospitals defenseless to the fight against pathogens and other diseases requiring experienced hands to care for loved ones.

Despite these very real demands and challenges facing nurses of all backgrounds, a possible solution exists that could cull the slaughtering shortage of caregivers. HCD looks at the problem through the emotional lens of the nurse and collaboratively solves predicaments in every step of the workplace (Sherman & Bordeaux, 2021). When nurse's feelings and values are viewed as an essential component of effective bedside care, dropping retention rates and burnout can occur less frequently. Some companies have tried to adopt this framework of thinking and

have had incredible success following its implementation. A home healthcare facility initially tried to stop nursing shortages by offering higher salary and better benefits (Sherman & Bordeaux, 2021). This plan did not solve the issue after its debut. After adopting the HCD via psychologically safe-interviews and co-creation sessions, the leaders became more aware of necessary opportunities to engage, develop, and retain the next generation of nurses. Understanding worker experiences can have a powerful positive influence on a healthcare facility like a hospital. When employers are willing to listen to the causes of negative workplace feelings and change conditions that drive attrition and burnout, bedside nursing care can be maintained and support ailing individuals in a safe as intended environment that makes the provider feel worth value.

Role of the Critical Care Nurse

Critical care nurses are being used and abused in the frontlines of healthcare today. Acting as liaison between the patient and doctor, much of the hospital workload is put on nurse's shoulders. Many nurses, particularly in the Coronavirus Disease 2019 (COVID-19) pandemic, can barely keep up with the growing health-related demands of society, leading to their own deficits of self-care and well-being (Sherman & Bordeaux, 2021). Critical care nurses that are showing a decline in their own well-being eventually transmit that same attention to detail onto bedside care. This results in inappropriate assessments, care plans, patient outcomes, and many other interventions the critical care nurse is responsible for conducting. Therefore, it is essential for medical facilities to take care of these critical care nurses by utilizing the HCD so patients can achieve the full potential of recovery.

Nursing Interventions

One of the most important interventions a nurse can make at the end of a shift is a handover. Communication is an essential part of the nurse's role over patient care. However, eventually the nurse must leave for the day requiring a smooth transition to another qualified bedside provider. Using HCD, Kaiser Permanente (KP) was able to collaborate with patients and providers to create the "Nurse Knowledge Exchange" handover process (Chin et al., 2020). This new and improved method of communication is a unique tool that standardizes the handover process between nurses. This allows for quick and reliable communication of patient goals, treatments, and events during the previous shift to the adjacent oncoming nurse. HCD helped refine a classic nursing responsibility that is otherwise overlooked by employers. As nurses and employers continue to work together, many more improvements will help nurses become more efficient and less likely to leave this career behind.

Another interesting advance HCD made in bedside care had to do with workarounds. Usually, workarounds offer informal exceptions to practices that increase workflow at the expense of the patient. This can be an issue because often these practices go unrecognized, and patients therefore become at risk for harm. An article explained how some nurses will scan copied patient barcodes from a book instead of at the bedside (Chin et al., 2020). Such practices were not revealed until HCD was implemented on the hospital floor. This collaborating effort revealed how best practice for medication administration was not being utilized and therefore put patients at a risk for harm. After identifying the workaround, it became expedient to understand why it was occurring in the first place and execute a realistic solution to the root of the problem (Chin et al., 2020). Looking at this problem through the lens of HCD helped not only the patient, but the nurse feel cared for as an individual. Instead of reprimanding nurses for failure to complying to best practice, the issue was resolved and both parties advanced towards improved

bedside care without complication. This type of nursing management will help retain the future generation of nurses and prevent burnout across medical staffing.

Patient and Family Education

Nurses are often found at the bedside teaching throughout the shift. As one of the primary responsibilities of the nurse, teaching must be always done effectively, including during discharge. To assist in the nurse's efforts to efficiently teach the discharging patient, Open Labs co-designed with Healthcare Human Factors to create "Patient Oriented Discharge Summaries" (PODs) to convey necessary guidelines to clients before leaving the hospital (Chin et al., 2020). Discharging a patient can be a tiresome and often tedious process for nurses; especially where many are needed to be done at one time. PODs allow nurses to quicken time with patients before discharge while upholding quality teaching in the process (Chin et al., 2020). This saves the nurse valuable time and allows it to be allocated to other demanding aspects of the job. These efforts were recognized because of health-centered design. Employers can be unfamiliar with the mechanics of discharging a patient. Allowing nurses, a safe space to voice concerns about the discharge processes made PODs an available and reliable tool to enhance bedside nursing.

Communication is a significant part of what makes an effective healthcare team. Nurses usually teach patient's what their facility deems as trusted protocol. However, if the nurse does not understand the reasons why or benefits of these in-place protocols, then the client is likely to comprehend in similar fashion impairing communication at the bedside. Implementing health-centered design requires everyone from the senior-level executives down to the bedside nurses to make a noticeable effect on patient teaching (Conn, 2021). If open communication and times are allowed to be set aside for a nurse to voice concerns about a particular protocol to the higher-ups, then understanding, and even improvement, can take place in the clinical setting.

This is vital towards productive bedside care. If nurses believe in the hospital practices at their facility, then the patients they care for will be more likely to trust bedside teaching as a result. HCD makes these understandings and improvements to communicating possible by allowing healthcare provider's opinions to feel respected and cared for as a person of value.

Research Effect on Patient Goals/Outcomes

Transferring patients from floor to floor in a hospital can effect goals and outcomes if not completed appropriately. In a study implementing HCD, inquired through patients, family, and staff how transferring often ended up with high rates of abrupt and uncomfortable conditions back to medical units (Wheelock et al., 2020). After redesigning the transferring process between units, families were now allowed to assist and accompany clients to and from areas with accepting nurses being allowed to "stop the line" if safety became a risk (Wheelock et al., 2020). This improved patient and family outcomes during bedside care. Negative experiences in and out of critical care dropped dramatically after the departure of previous transfer methods. Overall patient safety during transfers is enhanced with the collaboration of employers and critical care nurse teams. When HCD is implemented in a critical care unit, patients and their families show improved outcomes regarding transfers as a result.

Another way HCD can improve patient outcomes is by enhancing electronic health record (EHR) systems. A study published in the Annals of Family Medicine discovered how healthcare providers spend a typical six hours out of an 11.4-hour workday at the EHR (Mehta, 2021). Although EHRs are important for documentation and legal purposes of healthcare, half of the workday health care providers are spent away from the patient. It is important for Health Information Technology developers to know how effective and optimized these systems are so improvements can be made to get nurses back to the patient's bedside as soon as possible.

Patients cannot receive proper bedside care if those responsible for them are restricted to the EHR for half of the shift (Mehta, 2021). Health-centered design helped filter this important and unnoticed issue. This has allowed patient outcomes to become more polished because of the growing awareness of the critical care nurse's time at the EHR. With nurses remaining with their patients instead of with EHRs for much of the workday, outcomes are raised, and care is upgraded to a suitable level of professionalism.

Conclusion

For medical facilities to retain and prevent nursing burnout, it comes down to helping efficiency, eliminating tedious tasks, and treating these providers with a sense of value and respect. Nurses are more likely to stay in the healthcare field if their interventions, patient/family teaching, and outcomes are realized by employers as an essential and overlooked component of bedside care. Total reform is ultimately necessary at many healthcare facilities if retention is to be maintained and burnout prevented. If nurses are unable to be treated with the same HCD and attention their patients receive, then the shortage will continue to escalate until more acceptable outcomes can be established.

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