CE **1.5 ANCC Contact Hours**


Shutterstock

Nurses' Experiences of "Being Swamped" in the Clinical Setting and Association with Adherence to AWHONN Nurse Staffing Guidelines

Cheryl Roth, PhD, WHNP-BC, RNC-OB, RNFA, Melanie A. Brewer, DNSc, RN, FNP-BC, NEA-BC, FAANP, R. Curtis Bay, PhD, and Kevin P. Gosselin, PhD

Abstract

Purpose: Being swamped is defined as "when you are so overwhelmed with what is occurring that you are unable to focus on the most important thing." The purpose of this study was to explore the experience of being swamped in the clinical setting among nurses who are members of the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) and the relationship of the level of being swamped to adherence to the AWHONN (2010) nurse staffing guidelines.

Study Design and Methods: A 25-item survey was sent to ~21,000 AWHONN members by email in the Fall of 2018. It was completed by 1,198 members, representing 49 states and the District of Columbia. Questions explored timing and causes of being swamped, its effect on health care team members and patients, what helps when a nurse feels swamped, and nurses' reports of their hospital following the AWHONN nurse staffing guidelines.

Results: Twenty-eight percent of nurses reported being swamped daily or multiple times per day. Situations that contribute to being

swamped include assignments that are too heavy, interruptions, critical patient situations, and mistakes made by others that nurses are expected to catch and fix. Teamwork and someone stepping in to help without being asked were identified as most helpful when a nurse feels swamped. Nurses practicing in hospitals following the AWHONN nurse staffing guidelines always or most of the time reported less frequency of being swamped as compared with those in hospitals that followed the guidelines some of the time, or rarely ($p < 0.001$).
Clinical Implications: Being swamped is a common phenomenon among AWHONN members responding to the survey. The reported incidence of being swamped daily is significantly associated with the extent to which hospitals follow the AWHONN nurse staffing guidelines. Nurse leaders, hospital administrators, and staff nurses must work together to identify and initiate timely, feasible nurse staffing solutions that support the safety of patients and nurses.

Key words: AWHONN; Hospital; Job-related stress; Medical error of omission perinatal nursing; Missed care; Nurse staffing; Nursing staff; Obstetric nursing.

Various concepts and methods have been used to study the effects of inadequate nurse staffing in the clinical setting, generally on medical–surgical units in acute care hospitals. These include quantification of nurse staffing, nurse-to-patient ratios, hours per patient day, missed, delayed or incomplete care, skill mix, and educational preparation relative to potential consequences such as patient readmission rates, satisfaction, morbidity, and mortality. Several teams of nurse researchers in the United States and Europe have led the efforts to link nurse staffing with patient outcomes (Aiken et al., 2017; Ball et al., 2018; Griffiths et al., 2016; Lake et al., 2017; McHugh et al., 2013; Needleman et al., 2020; Recio-Saucedo et al., 2018; Simpson et al., 2020; Tubbs-Cooley et al., 2017; Tubbs-Cooley et al., 2019). Nurse staffing has been measured using a number of data sources including administrative and clinical data from electronic health records, publicly available quality data, annual hospital surveys, hospital discharge information, surveys of nurses providing direct care, and studies that have linked self-reported staffing surveys from nurses with one or more of these data sets.

Consequences of inadequate nurse staffing were described as "being swamped" by Roth et al. (2015) based on nurse descriptions of "having so much to do that one is unable to focus on the most important thing" (p. 177). In that study of 393 nurses in a Magnet three-hospital system, participants reported being swamped to be the most common and important cause of intractable error. Although most staff nurses know what "being swamped" means in reference to patient care and nurse staffing, it has not been used in the literature until recently to describe being overwhelmed in the context of inadequate nurse staffing or having too many patients to be able to do what needs to be done. The term "swamped" originally meant "to sink." The figurative meaning dates to the late 1700s or early 1800s, and refers to "sinking or drowning in work, just as a person could sink in a literal swamp" (WritingExplained, 2020). In a Delphi study that included a panel of 25 nurse expert leaders, being swamped was identified as the inability to focus on the most important thing, also described as being unable to determine what to do first (Roth et al., 2017).

Nurses practicing in hospitals following the AWHONN nurse staffing guidelines always or most of the time reported less frequency of being swamped as compared with those in hospitals that followed the guidelines some of the time, or rarely.

Several related terms have been described in the literature, including inattentional blindness (Simons & Chabris, 1999), situational awareness (McManus et al., 2006; Risser et al., 1999), missed, delayed, or incomplete care (Simpson et al., 2016), and moral distress (Jameton, 1984). Although inattentional blindness and situational awareness are about the inability to recognize or include factors outside of the primary area of focus, being swamped is related to the inability to establish the area of primary focus in a situation of complicated external factors. Missed care and moral distress may be the result of being swamped, as loss of focus may lead to late or missed elements of provision of care and resulting guilt over what was not accomplished.

Labor and birth, postpartum, newborn, mother–baby, and neonatal intensive care units can be very fast-paced with rapidly changing census and acuity. Patient volume is largely unpredictable. It is not unusual for a typical day to shift from a steady expected volume to an overflowing unit or patient surge within a matter of hours. Dealing with the changing volume can be challenging for even the most experienced and accomplished managers and supervisors. Support staff duties are increasingly being added to the nursing workload and can include monitoring quality assurance for bedside lab tests, and the checking and stocking of equipment, dietary, and housekeeping supplies.

In 2010, the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) published *Guidelines for Professional Registered Nurse Staffing for Perinatal Units*. In a recent survey of 615 labor nurses from 67 hospitals in the United States, Simpson et al. (2019) found most nurses perceived their hospitals to be frequently or always adhering to the AWHONN (2010) nurse staffing guidelines. Even with the best intentions to meet staffing needs, however, there are times when nurses must manage a higher volume and acuity than typical or expected. With the emphasis on tightened health care spending, lean budgets may be an additional barrier to achieving the best nurse staffing practices. These combined elements may contribute to nurses' feelings related to being swamped. The

purpose of this study was to explore the experience of being swamped in the clinical setting among nurses who are members of AWHONN and the relationship of the level of being swamped to adherence to the AWHONN nurse staffing guidelines.

Study Design and Methods

Correlational research design was used to guide this survey study. Approval was obtained by the Institutional Review Board of the health care system of the first author. An email with the survey invitation and an information statement was sent to all AWHONN members in the Fall of 2018. Members were given 2 weeks to complete the survey. One reminder email was sent. Participants were invited to anonymously enter a drawing for one of three $100 gift cards after completing the survey. Gift cards for the retailer of their choice were distributed to three randomly chosen participants after close of the survey.

Demographic data were gathered about participants' work history as well as standard questions such as age and gender. The survey included 13 items about being swamped including frequency, occurrence, predictability, common situations, recognition by self and others, mediation, and the impact on the health care team, patients, and families. A definition of being swamped was offered as part of the survey, "when you are so overwhelmed by the circumstances that you are unable to focus on the most important thing."

Multiple responses were allowed for six items, including an open response box for seven of the survey items, and an open response box on the final survey question. Count (percentage), mean (standard deviation), or median (interquartile range) is provided, as appropriate. The interquartile range (IQR) is reported in the case of skewed data. Spearman's rho was used to evaluate the relationship between hospital adherence with AWHONN nurse staffing guidelines and the frequency with which respondents experienced being swamped. Data were analyzed using SPSS v.22. Thematic analysis was used to develop categories and themes to analyze the qualitative responses (Polit & Beck, 2017).

Results

Of the approximately 21,000 AWHONN members in Fall 2018, 1,198 nurses representing 49 states and the District of Columbia completed the survey. Six AWHONN members living outside of the United States also participated. We were unable to determine how many AWHONN members opened the email or read the information about the study, so a true response rate could not be calculated. The five states that contributed the most respondents were California (9.7%, n = 116), Texas (8.3%, n = 100), New York (5.3%, n = 64), North Carolina (4.8%, n = 58), and Florida (4.3%, n = 51). The only demographic factor that showed a modest difference in being swamped was age; older nurses reported a lower level of being swamped than younger nurses ($p < 0.05$). See Table 1 for respondents' demographic data. A summary of the responses to the survey items is presented as follows.

Table 1. Demographic Characteristics of Nurse Participants (N = 1,198)

Variable	*n* (%), Unless Otherwise Noted
Age, years (M, SD)	47.0 (11.9)
Sex (Female)	1,181 (98.6)
Educational preparation	
Associate degree	124 (10.4)
Bachelor's degree	639 (53.3)
Master's degree	375 (31.3)
Doctoral degree	56 (4.7)
Other professional degree (JD, MD)	4 (0.3)
Living situation	
Live alone	105 (7.4)
Live with a partner/spouse	897 (63.3)
Single parents	173 (12.2)
Caregiver for parent/s	63 (4.5)
Caregiver for special needs child	8 (0.6)
Other	45 (3.2)
Years as health care professional	21.9 (12.6)
Years in current role	11.6 (10.5)
Most common work shifts	
12-hour day shift	454 (37.9)
8-hour day shift	251 (21.0)
12-hour night shift	250 (20.9)
Salaried	159 (13.3)
Other	84 (7.0)
External employment	
Second part-time job/PRN	229 (19.1)
Second full-time job	23 (1.9)
Primary role	
Registered nurse	992 (82.8)
Administrator	99 (8.3)
Advanced practice nurse	79 (6.6)
Other	28 (2.3)
Primary area worked	
Labor and delivery	652 (29.3)
Antepartum	204 (9.2)
Postpartum/couplet care	328 (14.7)
All obstetrics areas	277 (12.4)
Nursery	141 (6.3)
NICU	53 (2.8)
Academics	69 (3.1)
Administration, unit management	228 (10.2)
Women's health/GYN	110 (4.9)
Other	125 (5.6)

How Often Are You Swamped?

Table 2 includes responses and exemplar comments from participants. This item elicited many comments, most of which focused on assignments being too heavy or dealing with a sudden, unexpected turn of events involving patients, and the difficulty of admitting to being swamped.

Is There a Certain Time of the Day that You Feel Swamped Most Often?

Although 33.4% (n = 601) of participants noted that being swamped can occur anytime, the most commonly noted times were at the beginning of the shift (15.2%, n = 273) and the end of the shift (12.1%, n = 141). Only 2.4% (n = 43) of participants indicated being swamped mostly occurred between 9 p.m. and 3 a.m.

When You Are Swamped, What Percent of the Time Can You Identify Before It Occurred that You Were Getting Swamped?

Among the 1,168 participants who responded to this question, 2.5% (n = 30) indicated that they anticipated being swamped <10% of the time and 14.5% (n = 173) 90% to 100% of the time. Median response was 65% (IQR = 50–80).

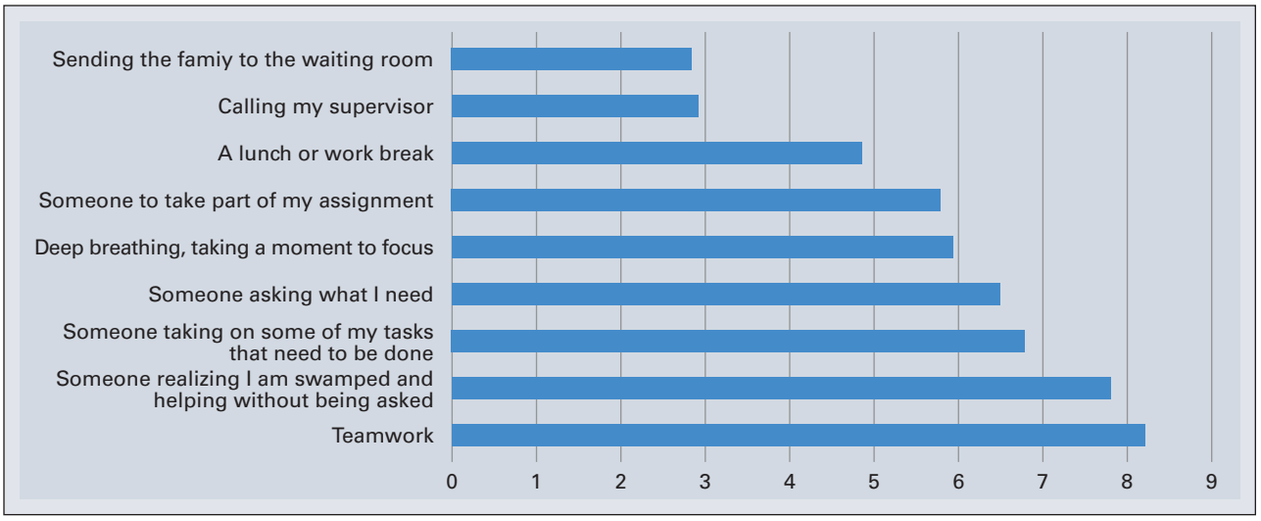
Table 2. How Often Are You Swamped?

Frequency	*n* (%)	Exemplar Participant Comments
Never	13 (1.1)	*Most of my swamping comes from a lack of physical resources (e.g., equipment) and/or a lack of human resources (e.g., not enough staff on to care for patients adequately).* *Inadequate staffing combined with higher patient acuity contribute to most situations in which I feel swamped.* *Nurses tend to feel a lot of shame when they have to ask for help. If someone asks, "what can I do?" it usually makes the situation more stressful, because you give them the simple task and still feel guilty.*
1–2 times per month	344 (28.7)	
1–2 times per week	505 (42.2)	
Daily	221 (18.5)	
Multiple times per day	115 (9.6)	
Total	1,198 (100)	

Table 3. Perceived Impact of Being Swamped on Health Care Team, Patient, and Families

Those Affected	Impact	*N* (%)	Exemplar Participant Comments
Health Care team			
	Errors happen	881 (73.5)	*Those who prioritize better and get their jobs done end up picking up the slack for those who don't and are easily swamped* *Blaming others for situation* *Drop in morale* *Team conflict because everyone needs help, but no one is free to give help*
	Staff get frustrated and quit	876 (73.1)	
	Things don't get done or they get missed	866 (72.3)	
	Things get done, but not on time	796 (66.4)	
	Multiple phone calls	411 (34.3)	
	Supervisors get frustrated and quit	199 (16.6)	
Patient and families			
	Patient care is perceived as poor	973 (81.2)	*Patient feels neglected* *Things get missed or not done, patient care, showers, bed changed, ambulating* *Incorrect hand off information - no time to verify* *Delayed activation of orders and delayed procedures* *Less of a personal touch, lack of thorough explanations and discussions*
	Long delays to answer call lights	740 (61.8)	
	Poor care coordination	726 (60.6)	
	Delayed discharge times	607 (50.7)	
	Missed medications	572 (47.8)	
	Poor pain control	520 (43.4)	
	Discharge information gets missed	376 (31.4)	
	Wrong orders get entered	325 (27.1)	
	Falls	132 (11.0)	

FIGURE 1. WHAT HELPS WHEN YOU ARE SWAMPED? RATED ON A SCALE OF 0–10



Which of the Following (Signs or Symptoms) Occur When You Are Swamped?
This item listed seven common signs or symptoms that people may feel when swamped and allowed nurses to choose one or more. The most commonly noted were feel anxious (76.8%, *n* = 920), trouble prioritizing tasks (56.3%, *n* = 675), and feel angry (41.7%, *n* = 500). Comments included *feel overwhelmed and not sure I will be able to provide optimal care; become task oriented; feeling hopeless and powerless; frustrated* and various physical symptoms including chest tightening, nausea, headache, dry mouth, and fatigue.

Rate on a Scale of 1 to 10 How Swamped You Typically Feel When These Situations Occur?
Twelve situations were offered as choices and one open response box was included. The highest rated scenario was assignment too heavy or unbalanced, followed by interruptions, patient deteriorating/critical, and mistakes made by others you are expected to catch and fix. Communication issues, lack of supplies, unexpected occurrences, fatigue, new processes and procedures, and working ill respectively were rated toward the middle of the scale options, with stress at home being the lowest rated. See Table 3.

When You Are Swamped, What Percent of the Time Do You Feel Others Recognize that You Are Swamped Without You Saying You Are?
Of 1,163 participants providing estimates, the median IQR estimate was 37% (20%–55%); 1.1% (*n* = 13) reported "0," and 1.4% (*n* = 17) reported "100%."

When You Are Swamped, What Percent of the Time Do You Receive Help?
Among 1,170 responses to this item, the median IQR percentage reported receiving help was 40% (20%–58%). Six nurses (0.5%) said they never received help when swamped, and 11 (0.9%) said they always received help.

Who Helps You When You Get Swamped?
The most frequently identified group to help was other team members (same job role) at 68.6% (*n* = 822), followed by team members (not the same job role), at 53.9% (*n* = 646). Supervisor/manager was noted by 11.7% (*n* = 232) of respondents.

Rate on a Scale of 1–10 What Helps You When You Are Swamped?
Ten options were offered for this item. The highest score for ameliorating being swamped was teamwork, followed by someone helping without asking what I need, someone taking on tasks, and someone asking what I need. Calling the supervisor and sending family to the waiting room were the lowest rated. See Figure 1. Suggestions for things that help when being swamped, not listed as options in the item but added by participants included *appropriate staffing, prayer*, *acknowledgment*, *administration understanding floor nursing*, and *encouragement or reassurances from colleagues*.

What Behaviors Tell You that Others Are Swamped?
Twelve options for answers were offered for this item, including an open response box. The three most frequent answers were: they look frustrated (90.3%, *n* = 1,082); they have not taken a break (81.1%, *n* = 971); and they are running around as fast as possible (79.2%, *n* = 949). Also noted (in descending order of response frequency) were: they say so; they are short-tempered; they look angry; they are crying; they are not chatting with others; they are not around the desk; they are not charting; and they are very quiet or focused. Comments included *Someone other than the swamped person tells me; cannot comprehend a task*; and *unable to follow directions*.

What is the Impact on Your Team, Patients, and Families?
Responses and exemplar comments are listed in Table 3.

Table 4. Thematic Summary of Final Survey Item Comments on Being Swamped

Factors in Being Swamped	Exemplar Comments
Causes	
Resources availability • Inadequate staffing • Inadequate physical resources • Increasing work demands without increased support • Lack of evidence-based guidelines use for staffing	*Being short staffed is a major contributing factor to being swamped in my department.* *Purposefully staffing short for productivity and having to call people in when it's busy is hard. Staffing guidelines would be ideal, but no one does that because of cost. The idea of cash over quality care is exhausting.* *The managers keep asking us to do more with less and less resources. Nurse dissatisfaction is at an all time high and no one is doing anything to help.* *Nurses not being able to get food, use toilet, walk away to recharge – is not good for patient care.* *If AWHONN would provide resources of complied evidence and data, with nursing competencies, policies, protocols etc. like AORN* [Association of periOperative Registered Nurses] *and ASPAN* [American Society of PeriAnesthesia Nurses] *have done, my life as a nurse leader would be much easier.*
Patient factors • Higher acuity • Unrealistic expectations	*Acuity is no longer taken into consideration with assignments because it seems like every couplet has a secondary issue.* *All assignments tend to be higher acuity then previous years.*
Management influence • Unrealistic expectations of staff abilities to meet increasing practice demands • Prioritizing patient satisfaction over patient and staff safety	*Hospitals base patient and family satisfaction and profit above patient safety and RN safety.* *More and more is being expected with patients that are higher acuity but less and less other team member support! We are expected to do computer work at expense of hands on care.* *I am a supervisor and I have so many projects to initiate and keep going along with the daily clerical tasks, it is ridiculous. The expectations are unrealistic.*
Moderating Effects	
Teamwork • Effective teamwork • Good communication among team members	*I think the best teams watch each other and jump in to help when things go sideways. It makes the difference between a stressful work environment, and a positive one.* *It is helpful at the beginning of each shift to remind the staff who the heavier patients are and we will all do our best to help.*
Caregiver support • Recognition of staff burden • Sensitivity of coworkers to personal swamping and intervening when needed	*Need to ensure nurses are taken care of so we can take care of our patients.* *Need to be held accountable for putting nurses first instead of [a focus] only on the unit budget.*
Personal perception • Personal ability to prioritize work activities • Shame and guilt when asking for help	*I rarely ever feel swamped. If I am, I step back and prioritize and just plug along until the work is done.* *When I'm swamped, the stress is so bad, I stop feeling for my patients (no compassion, sympathy or empathy). I just focus on getting the tasks done as quickly and efficiently as possible.*
Work Environment Effects	
Increased staff turnover • Persistent swamping • Equitable workload • Accountability for guideline use for safety	*I quit because of unresolved swamping.* *Faculty workload must be calculated and class sizes controlled to promote student learning and faculty retention.* *AWHONN staffing guidelines are considered just a recommendation, can more be done to make them more of an expectation for safety?*
Coworker factors • Personal perception and feedback received from coworkers • Lack of support from coworkers	*Some of the swamping issue with me is that I find it hard to ask for help or accept help at times.* *Being "swamped" is a perception. We all have different thresholds before we feel it. Generation differences play a big part in this. Cell phones and social media and networking also make for very easy distraction, and then it is easy to justify and defend why we are running behind and feeling overwhelmed.* *I know for myself, I need to ask for help, someone always helps if you ask, I feel like I should be able to do it and then get angry that others may be sitting around and chatting.*

Is There Anything You Would Like to Add?

With the open-question format, nurses were able to respond freely with their own words and from their own perspective. This question generated 92 comments. Thematic analysis of the comments included three broad themes and seven subthemes describing factors associated with being swamped in the work environment. See Table 4.

Does Your Hospital Follow the AWHONN Staffing Guidelines?

Over one-third of nurses (36.0%; n = 447) indicated yes, always or most of the time; 34.5% (n = 429) reported some of the time; 15.4% (n = 191) responded no, rarely or never; and 8.1% (n = 100) did not know. When correlated to the level of being swamped reported, nurses in hospitals that always or most of the time followed the guidelines reported a lower rate of being swamped weekly, daily, or multiple times per day (rate of being swamped = 62%) than those who reported following guidelines some of the time (rate of being swamped = 71%) or rarely or never (rate of being swamped = 83%), $p < 0.001$. See Figure 2.

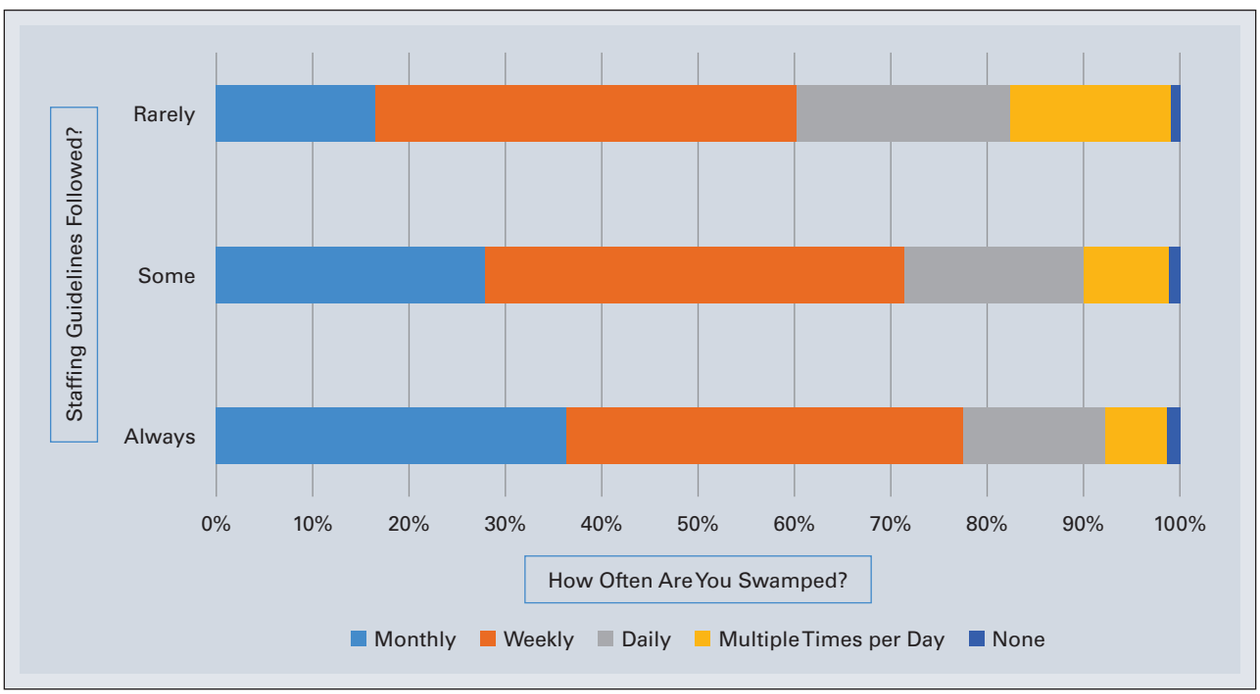
Clinical Nursing Implications

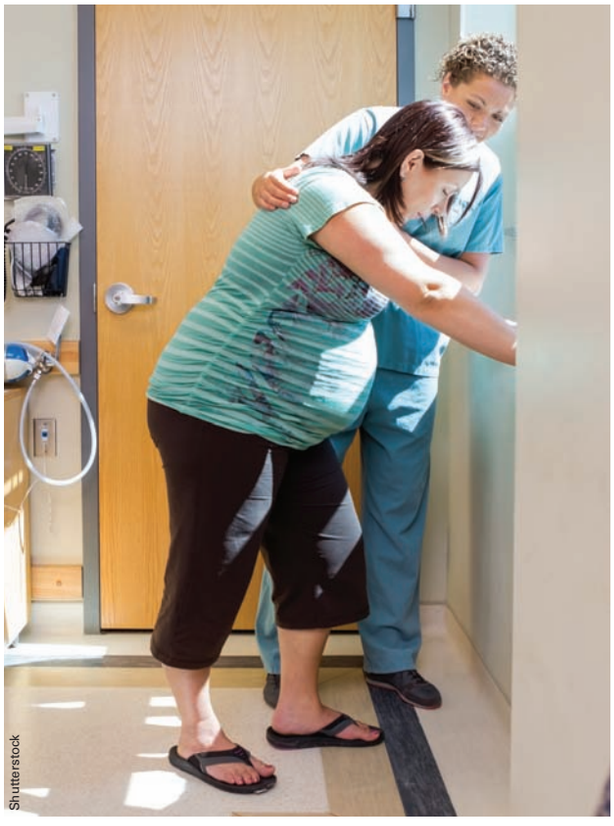
Our findings reveal being swamped is very common in the workplace for AWHONN member survey participants. Nurses feel swamped in the hospital, clinical, and academic settings, and it is common among nurses of all demographics including age and gender. Older nurses reported a lower level of being swamped than younger nurses. There is a higher frequency of being swamped at the beginning and end of the shift, but it occurs unpredictably. Nurses may or may not recognize they are becoming swamped; however when they do, they may have physical symptoms such as headache and may feel frustrated or angry. Some nurses will speak up when they are swamped, but feel they are letting their team down if they do so or are not a good enough nurse. When nurses do get help, it is most often from someone on their team, either in the same job description or another role.

Ability to recognize that others are being swamped is generally related to observation of a change in usual patterns. Situations that are most likely contributory are consistent with literature on workload issues contributing to missed care, delayed or incomplete care (Simpson et al., 2016; Tubbs-Cooley et al., 2019). These include assignments that are too heavy, interruptions, and critical patient situations, and mistakes made by others that nurses are expected to catch and fix. When swamped, nurses identified teamwork and someone helping without asking what needs to be done as the most helpful. This is most often by experienced nurses who can step into a situation and identify needs without direction, as the nurse who is swamped may not even be able to verbalize their most important need.

Missed care, errors, and frustration are the most common effects of being swamped. Nurses reported that patients and family feel they are receiving poor patient care in this context. When given the option of open-ended comments, many nurses used that opportunity to express their dissatisfaction with what seems to be an accepted part of a normal workload. Comments were themed generally as frustration with the normalization of being swamped, the impression that the budget was more important than staff

FIGURE 2. RELATIONSHIP BETWEEN HOW OFTEN NURSES ARE SWAMPED AND REPORT OF THEIR HOSPITAL FOLLOWING AWHONN NURSE STAFFING GUIDELINES




Shutterstock

Almost three-quarters of nurse respondents reported that their hospital follows the 2010 AWHONN staffing guidelines some of the time, most of the time, or always.

workload, that the AWHONN nurse staffing guidelines were considered optional rather than a standard, and concern for impact on patients and families.

Study strengths included the broad nature of the respondents, who were from every part of the United States and represented every area of nursing in women's health, obstetrics, and neonatal care. Limitations were related to the use of being swamped as a new term to discuss a potential consequence of inadequate nurse staffing in the literature.

More research is needed on this topic including what it means to be swamped, what helps, and how to prevent it. Knowledge of how to improve and what model of care works best would be highly beneficial. Implications for relationships between nurses being swamped and patient outcomes should be explored. Study of this concept in other areas of health care, such as intensive care units, emergency departments, and pharmacies would be valuable. The current state being overwhelmed with too many patients and not enough nurses identified in this study is not sustainable in the long term. Nurse leaders must work together with staff nurses and hospital administrators toward solutions that include budgetary and leadership support for adequate nurse staffing on a routine basis. ✣

CLINICAL NURSING IMPLICATIONS

- Nursing leaders must recognize that being swamped in the clinical setting is a very common phenomenon.
- When there are too many patients and not enough nurses, there is potential for negative impacts on the health care team, patients, and families including clinical errors, missed care, poor patient satisfaction, job-related stress, and physiologic stress.
- Being swamped may impede nurses' ability to prioritize critical clinical interventions.
- When nurses are swamped, teamwork and someone helping without asking were identified as the most helpful intervention.
- In the context of being swamped, important aspects of nursing care may be missed, delayed, or not fully completed.
- Following the AWHONN staffing guidelines has a positive impact in the clinical setting by minimizing or avoiding nurses feeling swamped.
- Nurse leaders must work together with staff nurses and hospital administrators toward solutions that include budgetary and leadership support for adequate nurse staffing on a routine basis.

Dr. Cheryl Roth is a Nurse Practitioner, Labor and Delivery, HonorHealth Scottsdale Shea/Osborn, Scottsdale, AZ. Dr. Roth can be reached via email at croth@honorhealth.com

Dr. Melanie A. Brewer is a Clinical Professor and Edson Director of Practice Partnerships, Edson College of Nursing and Health Innovation, Arizona State University; and Director, Research, Center for Clinical Excellence, HonorHealth, Scottsdale, AZ.

Dr. R. Curtis Bay is a Professor, Biostatistics, Department of Interdisciplinary Health Sciences, A. T. Still University, Mesa, AZ.

Dr. Kevin P. Gosselin is Director, Academics and Biostatistics, HonorHealth Research Institute, Scottsdale, AZ.

The authors declare no conflicts of interest.

DOI:10.1097/NMC.0000000000000643

References

Aiken, L. H., Sloane, D., Griffiths, P., Rafferty, A. M., Bruyneel, L., McHugh, M., Maier, C. B., Moreno-Casbas, T., Ball, J. E., Ausserhofer, D., Sermeus, W. for the RN4CAST Consortium. (2017). Nursing skill mix in European hospitals: Cross-sectional study of the association with mortality, patient ratings, and quality of care. *BMJ Quality and Safety, 26*(7), 559–568. https://doi.org/10.1136/bmjqs-2016-005567

Association of Women's Health, Obstetric and Neonatal Nurses. (2010). *Guidelines for professional registered nurse staffing for perinatal units.*

Ball, J. E., Bruyneel, L., Aiken, L. H., Sermeus, W., Sloane, D. M., Rafferty, A. M., Lindqvist, R., Tishelman, C., Griffiths, P. for the RN4Cast Consortium. (2018). Post-operative mortality, missed care and nurse staffing in nine countries: A cross-sectional study. *International Journal of Nursing Studies, 78*, 10–15. https://doi.org/10.1016/j.ijnurstu.2017.08.004

Griffiths, P., Ball, J., Murrells, T., Jones, S., & Rafferty, A. M. (2016). Registered nurse, healthcare support worker, medical staffing levels and mortality in English hospital trusts: A cross-sectional study. *BMJ Open, 6*(2), e008751. https://doi.org/10.1136/bmjopen-2015-008751

Jameton, A. (1984). *Nursing practice: The ethical issues*. Prentice-Hall.

Lake, E. T., de Cordova, P. B., Barton, S., Singh, S., Agosto, P. D., Ely, B., Roberts, K. E., & Aiken, L. H. (2017). Missed nursing care in pediatrics. *Hospital Pediatrics, 7*(7), 378–384. https://doi.org/10.1542/hpeds.2016-0141

McHugh, M. D., Berez, J., & Small, D. S. (2013). Hospitals with higher nurse staffing had lower odds of readmissions penalties than hospitals with lower staffing. *Health Affairs (Millwood), 32*(10), 1740–1747. https://doi.org/10.1377/hlthaff.2013.0613

McManus, J., Huebner, K., & Scheulen, J. (2006). The science of surge: Detection and situational awareness. *Academic Emergency Medicine, 13*(1), 1179–1182. https://doi.org/10.1197/j.aem.2006.06.038

Needleman, J., Liu, J., Shang, J., Larson, E. L., & Stone, P. W. (2020). Association of registered nurse and nursing support staffing with inpatient hospital mortality. *BMJ Quality and Safety, 29*(1), 10–18. https://doi.org/10.1136/bmjqs-2018-009219

Polit, D. F., & Beck, C. T. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). Wolters Kluwer.

Recio-Saucedo, A., Dall'Ora, C., Maruotti, A., Ball, J., Briggs, J., Meredith, P., Redfern, O. C., Kovacs, C., Prytherch, D., Smith, G. B., & Griffiths, P. (2018). What impact does nursing care left undone have on patient outcomes? Review of the literature. *Journal of Clinical Nursing, 27*(11–12), 2248–2259. https://doi.org/10.1111/jocn.14058

Risser, D. T., Rice, M. M., Salisbury, M. L., Simon, R., Jay, G. D., Berns, S. D., The MedTeams Research Consortium. (1999). The potential for improved teamwork to reduce medical errors in the emergency department. *Annals of Emergency Medicine, 34*(3), 373–383. https://doi.org/10.1016/S0196-0644(99)70134-4

Roth, C., Brewer, M., & Wieck, K. L. (2017). Using a Delphi method to identify human factors contributing to nursing errors. *Nursing Forum, 52*(3), 173–179. https://doi.org/10.1111/nuf.12178

Roth, C., Wieck, K. L., Fountain, R., & Haas, B. K. (2015). Hospital nurses' perceptions of human factors contributing to nursing errors. *The Journal of Nursing Administration, 45*(5), 263–269. https://doi.org/10.1097/NNA.0000000000000196

Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: Sustained inattentional blindness for dynamic events. *Perception, 28*(9), 1059–1074. https://doi.org/10.1068/p281059

Simpson, K. R., Lyndon, A., & Ruhl, C. (2016). Consequences of inadequate staffing include missed care, potential failure to rescue, and job stress and dissatisfaction. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 45*(4), 481–490. https://doi.org/10.1016/j.jogn.2016.02.011

Simpson, K. R., Lyndon, A., Spetz, J., Gay, C. L., & Landstrom, G. L. (2019). Adherence to the AWHONN Staffing Guidelines as perceived by labor nurses. *Nursing for Women's Health, 23*(3), 217–223. https://doi.org/10.1016/j.nwh.2019.03.003

Simpson, K. R., Lyndon, A., Spetz, J., Gay, C. L., & Landstrom, G. L. (2020). Missed nursing care during labor and birth and exclusive breastfeeding during hospitalization for childbirth. *MCN. The American Journal of Maternal Child Nursing, 45*(5), XX. DOI: XXX.

Tubbs-Cooley, H. L., & Gurses, A. P. (2017). Missed nursing care: Understanding and improving nursing care quality in pediatrics. *Hospital Pediatrics, 7*(7), 424–426. https://doi.org/10.1542/hpeds.2017-0083

Tubbs-Cooley, H. L., Mara, C. A., Carle, A. C., Mark, B. A., & Pickler, R. H. (2019). Association of nurse workload with missed nursing care in the neonatal intensive care unit. *Journal of the American Medical Association Pediatrics, 173*(1), 44–51. https://doi.org/10.1001/jamapediatrics.2018.3619

WritingExplained.org. (2020). "What does swamped with work mean?" *WritingExplained.org*. https://writingexplained.org/idiom-dictionary/swamped-with-work

For additional continuing nursing education activities related to maternal child nursing, go to nursingcenter.com.

Instructions for Taking the CE Test Online

Nurses' Experiences of "Being Swamped" in the Clinical Setting and Association with Adherence to AWHONN Nurse Staffing Guidelines

- Read the article. The test for this CE activity can be taken online at www.nursingcenter.com. Tests can no longer be mailed or faxed.
- You will need to create a free login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development (LPD) online CE activities for you.
- There is only one correct answer for each question. A passing score for this test is 13 correct answers. If you pass, you can print your certificate of earned contact hours and the answer key. If you fail, you have the option of taking the test again at no additional cost.
- For questions, contact LPD: 1-800-787-8985.

Registration Deadline: September 2, 2022.

Disclosure Statement:

The author and planners have disclosed no potential conflicts of interest, financial or otherwise.

Provider Accreditation:

LPD will award 1.5 contact hours for this continuing nursing education activity.

LPD is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 1.5 contact hours. LPD is also an approved provider of continuing nursing education by the District of Columbia, Georgia, and Florida, CE Broker #50-1223.

Payment:

- The registration fee for this test is $17.95.