Workplace Incivility Affecting CRNAs:
A Study of Prevalence, Severity, Consequences
With Proposed Interventions

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Abstract

Purpose: Professional burnout can occur as a result of several factors in present day healthcare facilities. Incivility within health care institutions is one growing concern affecting stress and professional burnout. Stress can be defined as a state of psychological tension resulting from demanding situations. Professional burnout can be defined as physical or mental breakdown caused by over working and/or high stress situations. Incivility has potential detrimental effects not only on the health care provider, but also on patient safety. Incivility has also been associated with increased overall cost of health care delivery. This is a study of the prevalence of incivility and burnout, as well as the relationship that incivility has on the development of professional burnout experienced by CRNAs in the state of Michigan.

Methods: Data was collected between October and November of 2012 via a Qualtrics© survey. The NIS (Nursing Incivility Scale) was used to measure workplace incivility. The CBI (Copenhagen Burnout Inventory) was used to measure professional burnout. In addition open-ended questions were used to survey a population of Michigan CRNAs regarding workplace incivility.

Conclusions: Analysis of data from the NIS, CBI and open-ended questions revealed that CRNAs work in a potentially stressful environment and experience incivility from several sources. A statistical significant relationship between workplace incivility and professional burnout was identified with the use of SPSS programming of the quantified data collected. Analysis of the qualitative data revealed

recommendations on *prevention, coping with and management detection of* workplace incivility in attempt to curb professional burnout of CRNAs.

Key Words: *Incivility, Mobbing, Stress, Burnout, CRNA.*

Chapter I

Introduction

This literature review first broadly defines incivility and one of the most damaging types of incivility, mobbing. It then provides specific examples of uncivil and mobbing behaviors cited in the literature. The review then discusses theoretical frameworks on incivility, the prevalence and consequences of uncivil behaviors, and suggested interventions to address this problem in the workplace. Most of the sections in this review pertain to literature specific to nursing. The last section evaluates the very limited research concerning incivility and mobbing available in the area of Nurse Anesthesia. The literature review concludes with the gaps of past research in the area of Nurse Anesthesia.

Chapter II

Literature Review

Definition

Hutton and Gates define incivility as "low-intensity, deviant behavior with ambiguous intent to harm the target." Incivility violates norms for mutual respect in the workplace. The authors also state: "uncivil behaviors are characteristically rude and discourteous, displaying a lack of regard for others."[1] (p168) Clark has defined incivility as "rude or disruptive behaviors that often result in psychological or physiological distress for the people involved and, if left unaddressed, may progress into a threatening situation."[2] (p.158)

Mobbing behaviors have been defined by Ozturk et al as "emotional assaults at workplaces" that are associated with bullying and stalking.[3] (p435) Other researchers such as Yildirim and Yildirim define mobbing as "workplace terrorizing, pressure, frightening, belittling and psycho-terror." They further define it as: "the presence of systematic directed, unethical communication and antagonistic behavior by one or more individuals." Mobbing behaviors occur frequently and continue for long periods of time and are among the most serious causes of workplace stress.[4] (p1444)

Since the above definitions of incivility and mobbing are broad, the following presents examples of uncivil and mobbing behaviors. As stated by Clark, there are a variety of uncivil behaviors. Table 1 summarizes different types of uncivil behaviors in the published nursing research.

Table 1. Uncivil behaviors

Deleseaga, 2009	Guidroz, 2010
Using silent treatment	General incivility
Spreading rumors	Using inappropriate jokes
Being rude and obnoxious	Using hostility and rudeness
Badgering or back-stabbing	Nursing incivility
Sabotaging a project	Exhibiting inconsiderate behavior
Damaging someone's reputation	Spreading gossip and rumor
Using humiliation, put downs	Free Riding
Using intimidation	Supervisor incivility
Failing to support a co-worker	Being verbally abusive
Being verbally abusive	Yelling at nurses
Reprimanding publically	Physician incivility
Making sarcastic comments	Being verbally abusive
Destroying confidence	Physicians yelling at nurse
Losing one's temper	Physicians yells for making mistakes
Criticizing continuously	Physicians not responding to nurse concerns
Encouraging others to turn against a co-worker	Condescending to nurse
	Patient/Visitor incivility
	Patients not trusting the information given by nurse
	Patients are condescending to nurse
	Patients make comments that question nurse competence
	Patients criticizing nurse performance
	Patients making personal verbal attacks against nurse

Andersson, 1999	Johnson, 2001
Giving dirty looks	Sending nasty or demeaning emails/notes
Asking for input and then ignoring it	Engaging in side conversations during formal meeting
Not sharing credit when due	Talking about someone behind his/her back
Speaking in condescending tone	Being emotionally insulting
Interrupting others	Disrespecting workers with comments/gestures
Not listening	Disrespecting workers race, religion, gender
Waiting impatiently for attention	Making accusations about professional competence
	Undermining credibility in presences of others
	Overruling decisions with giving a reason
	Disrupting meetings
	Delivering public reprimands
	Using silent treatment
	Not giving credit where due
	Using Dirty looks
	Eye rolling
	Insulting others

Deleseaga[5], Guidroz[6], Andersson[7], Johnson[8].

There is limited research in the area of mobbing behaviors within the workplace, especially in the United States. Most of the published studies have been conducted in Turkey, Germany, Mexico, Spain, and Italy. Table 2 summarizes various mobbing behaviors discussed in countries other that the US.

Table 2. Mobbing behaviors

Ozturk, 2008	Yildirim, 2007
[Mobbing scale for academic nurses]	Isolating behaviors
Attacking self esteem	Increasing workload
Criticizing qualifications	Attacking personality
Gossiping	Attacking on professional status
Inhibiting education	Saying untrue things about employee
Questioning the decisions of nurse	Spreading false rumors
Limiting ability to show qualifications	Verbally threatening someone
Leaving outside of group events	Always finding errors in the employee
Nurse decisions are always being questioned	Having someone suggest you are not psychologically well
Treating others in prejudiced manner	Being blamed for things you are not responsible for
Damaging of honor, self respect and self esteem	Writing unfair reports
Not respecting nurse efforts	Not receiving answers to emails
Attacks toward person and professional relationships	Pressuring employees to quit the job
Prevention of nurse to talk	Harming employees personal things
Meeting about nurse employment held in private	Using violence
Giving important tasks to those less qualified	Devaluing the work done
Changing of nurse tasks without information	Holding nurse responsible for more work than possible
Correspondence is checked	
Exposing to physical violence	

Source: Ozturk[3], Yildirim[4]

It becomes apparent when comparing tables 1 and 2 that there is some overlap between incivility and mobbing by definition. For example, "spreading rumors" can be defined as either an uncivil or a mobbing behavior. However, when describing mobbing, more extreme behaviors are incorporated. Mobbing, therefore, can potentially cause more emotional damage.

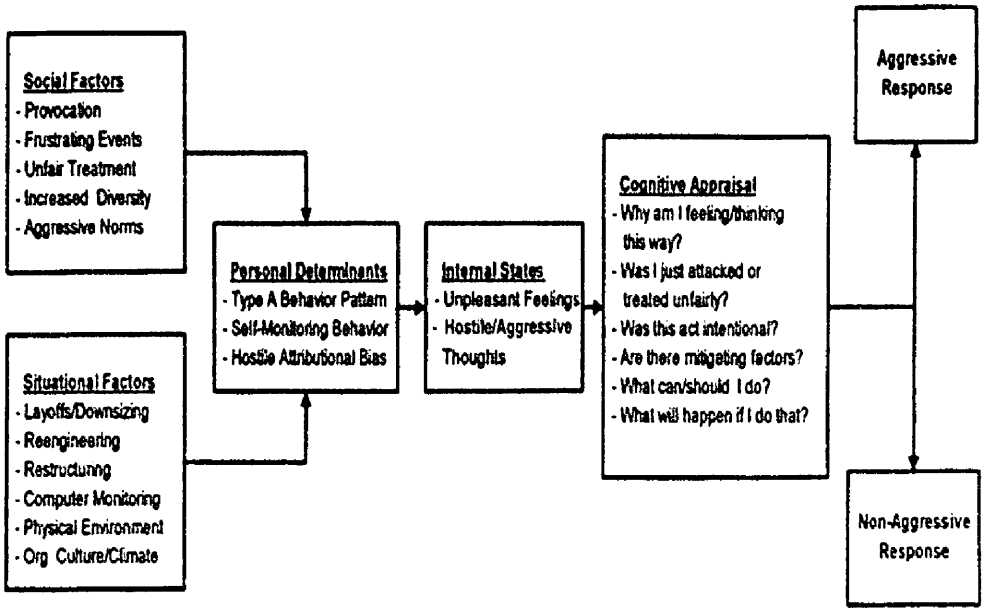
As shown in Table 1, incivility and mobbing can occur among employees of the same rank, between managers and employee, between physicians and employees, and between patients and employees. The various types of uncivil and mobbing behaviors in Tables 1 and 2 suggest that there are many ways of defining such actions.

Theoretical frameworks

Newman and Barron show that workplace aggression is caused by various social situational and environmental determents (Figure 1). Examples of social determents are frustrating events, unfair treatment and increased diversity.

Examples of situational factors are layoffs, reengineering, restructuring, and organizational culture. Individual factors such as having hostile thoughts also can cause incivility (Figure 1).[9] The book "The Civility Solution: What to Do When People Are Rude?" suggest several other individual causes of incivility, including lack of restraint, inflated self-worth, low self-worth, materialism, injustice, anger, and mental health problems.[10]

Figure 1. Factors affecting aggressive and non-aggressive responses

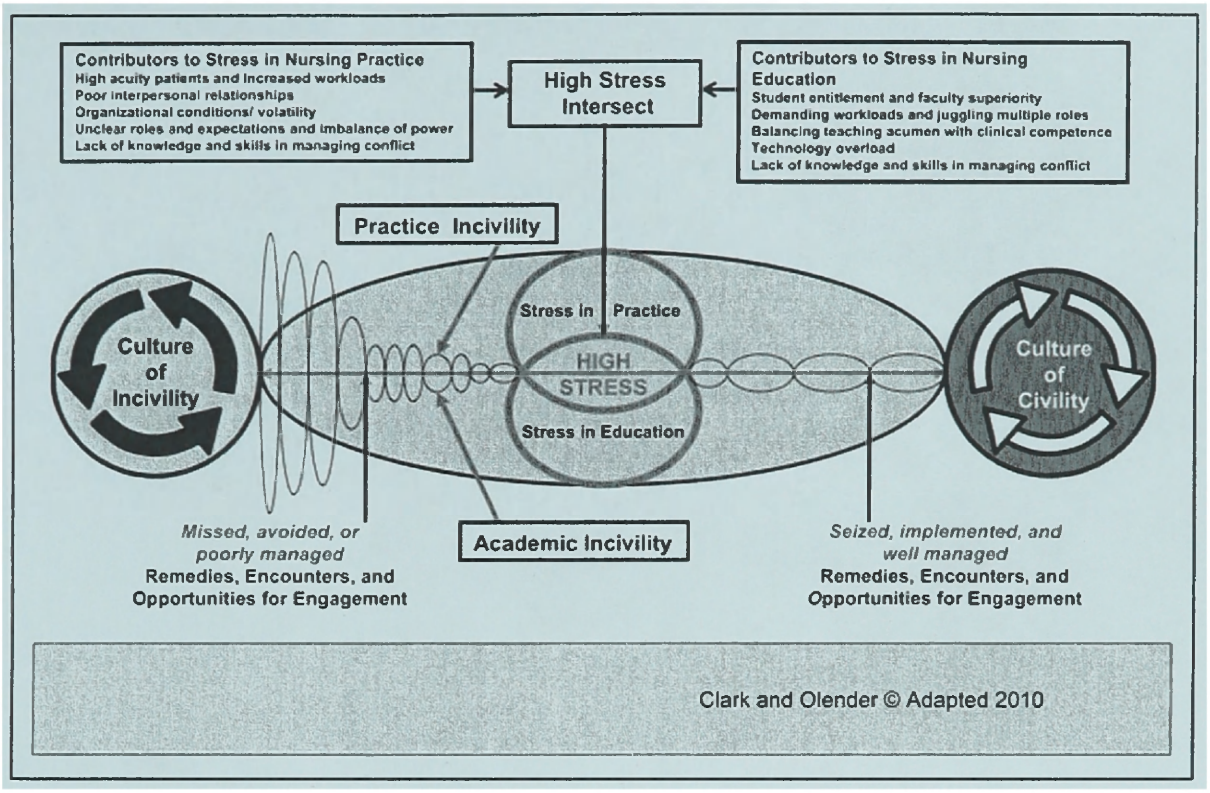


Source: Newman and Baron[9]

The following figure conceptualizes the Clark model relationship of stressors in nursing practice and contributors to stress in nursing education. The large oval area represents interaction between faculty and students. The core of the figure denotes the points of highest stress interaction between faculty and students; the stress interaction is influenced by several factors noted in the diagram. The double-sided arrow shows a continuum of potential conditions that either escalate or de-escalate the relationship between faculty and students. Interactions that escalate a

relationship toward incivility are represented on the left, while interactions that de-escalate a relationship toward civility are represented on the right.

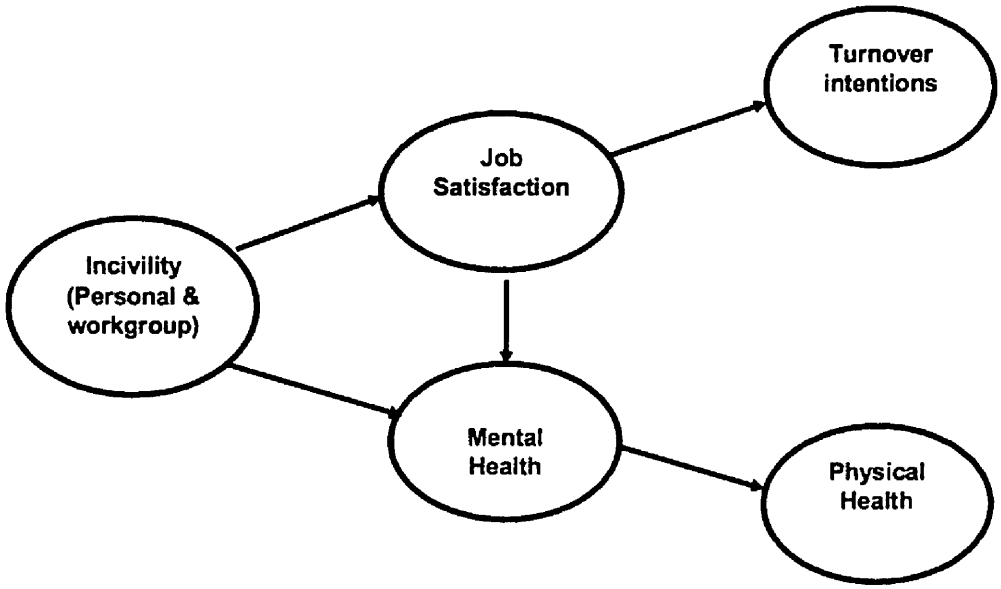
Figure 2. Contributors to stress in nursing education and practice



Source: Clark and Kennaley[2]

Figure 3 shows an additional model by Lim et al. (2008) that conceptualizes the effects of incivility on the personal health and workgroup dynamics. Incivility can lead to reduced job satisfaction, which in turn can lead to increased job turnover. In addition, job dissatisfaction can lead to poor mental health and reduced general physical health. [11]

Figure 3. Influence of incivility on turnover intentions and physical health



Source: Lim[11]

Significance of Incivility: Prevalence and Consequences

Incivility is a significant issue in health care as it affects not only the practitioner that is enduring the negative acts of incivility or bullying; it also affects bystander practitioners, as well as the care that is delivered under the penumbra of an uncivil work environment.[12]

Most studies have examined the prevalence of incivility in the public sector and businesses. Others have focused on physicians, residents, and nurses. In 2001, Courtina et al. surveyed 180 public sector employees; using the WPI (workplace

incivility) scale to measure incivility, the authors found that approximately 71% reported some type of incivility[13]. According to Zolby: "many of us are affected by workplace incivility/bullying: 37% US workers directly experienced bullying, 12% witnessed bullying."[14] (p16)

Lewis and Malecha reported that 85% (553 out of 659 nurses) experienced workplace incivility, as assessed by the WPI scale. Approximately 37% of the nurses (239 out of 659 nurses) reported that they themselves practiced incivility on others within the profession. It was also reported that the incivility deceased productivity and raised health care facility operating cost.[15] Holloway and Kusy report that toxic behaviors in healthcare increase costs of healthcare delivery. They report that 47% of victims of workplace incivility spend less time at work; 38% decrease work quality; 68% claim their performance has suffered; and 78% and have claimed their over all commitment to the organization has declined as a result of being treated in an uncivil manner.[16]

Various studies have been conducted on the consequences of workplace incivility. According to Zolby: "45% had their health affected due to stress from bullying, 3% filed lawsuits related to bullying, and 40% who experienced bullying never complained." [14] (p.16)

Lewis and Malecha surveyed 2,160 staff nurses using the Nursing Incivility Scale (NIS). Loss of productivity was assessed by the Loss Productivity Work Limitation questionnaire. Incivility resulted in low employee productivity. The authors calculated the cost of lost productivity to be $11,581 per nurse per year. The authors recommended that nursing leaders work towards ensuring a healthy

work environment. This type of work environment is expected to keep costs related to turnover and lower levels of productivity in check.[15]

There has been only one study that focused on the prevalence of incivility in the area of Nurse Anesthesia. Sakellaropoulos et al. examined workplace aggression and the effects on CRNAs. They found that several factors played key roles in workplace incivility. Social factors such as provocation, frustrating events, unfair treatment, increased diversity, aggressive norms coupled with personal attributes, such as being type A personality pattern, self-monitoring behavior and hostile attribution, bias play into experiencing stress while at work. Inter-personal injustice was reported as one of the most significant sources of workplace aggression experienced by CRNAs, especially within the younger and female CRNA group.[17]

According to Johnson and Indvik, the causes of poor behaviors at work are the result of stress and being overworked[8]. The combination of working harder in a stressful environment and having lower levels of work enjoyment may result in people having unbalanced lives. Targeted workers experiencing workplace incivility and rudeness have been on the increase over the last decade.[8] Johnson and Indvik report that 53% of victims spend work time worrying about uncivil incidents; 28% of victims lost work time avoiding the instigator of the uncivil acts; 46% considered changing jobs as a result of the incivility; and 12% actually quit to avoid the instigator[8].

Burnout in nurse anesthesia has been studied and reported in literature. Chipas and Mckenna state CRNAs may experience a higher rate of burnout due to

the anesthesia profession being monotonous, with the simultaneous need for a high-level attention to detail. They state CRNAs may experience frequent and intense interactions with other professional healthcare providers, which may add to the overall stress experienced by the anesthesia practitioner. This negative stress may be compounded if the CRNA practitioner lacks a balance between work and personal life and tries to be "everything to everyone," leaving abbreviated time for self. [18 (p.123)]

Yildirim and Yildirim administered a survey (more information on the survey is available in Table 2) among 325 public hospital nurses and 180 private hospital nurses in the period from October to December 2005. They reported as a consequence of mobbing, nurses experienced psychological, emotional and social problems. The nurses reported that they needed to work harder in the workplace to combat mobbing. One tenth of the participants contemplated self-destructive behaviors, including suicide.[4]

The review of the literature reveals that incivility is a serious concern due to the fact it affects a high percentage of employees. Incivility can have serious negative consequences for the employee. Therefore, it is important to develop and implement interventions to address incivility in the workplace.

Interventions to Address Incivility

Few interventions to combat incivility in nursing have been conducted. Jenkins et al in 2010 implemented an intervention among 10 nursing students. The goal of the intervention was to increase awareness about the importance of incivility. During a one-hour meeting, articles of civility were discussed with

students who participated in activities that encouraged civility. Stress management and relaxation techniques were taught to the students. Civil behaviors were practiced in a model environment. As a result of the intervention, student attitudes and behaviors changed. For example, students became more aware of the negative consequences due to incivility. There was also an increased likelihood by the students to refuse participation in uncivil behaviors, and be more helpful to others.[19] The intervention thus helped address individual causes of incivility.

Pompili et al and Yildrim et al, found that as a result of bullying, 80% used talking to colleagues and friends, and 78% of the victim workers became more organized and careful at work to avoid criticism. Coping mechanisms used by victims of bullying included organizing a face-to-face discussion between victim and aggressor (71%); some victims considered resigning their positions (50%); while others considered taking legal action against the institution (22%); 9% occasionally considered suicide; 3% thought about suicide from time to time; and 2% considered suicide all the time.[20, 21]

As discussed, there have been a limited number of interventions to address workplace incivility in nursing. However, different authors recommend interventions based on their experiences. Harris, a registered nurse, recommends interventions not only at the individual, but also at the organizational level.[22]

At the individual level, Harris recommends role modeling, showing passion for the nursing profession and mentoring others to prevent workplace incivility. She also recommends that employees themselves should show respectful behavior. Harris further recommends scheduling meetings with the department's human

resource representative. In this meeting, individuals would discuss uncivil behaviors within the organization.

At the organizational level, Harris recommends the development of a policy to improve civility within the organization. The author suggests that organizations should develop a code of conduct. This code should include items related to all employees in the medical organization. Furthermore, the code needs to be utilized by the institution in order for it to be effective and leaders of the medical organization should take an active part in addressing incivility.[22]

Two textbooks have addressed the problems of workplace incivility within the nursing profession; one of them is entitled "Stabotage!" and authored by Briles[23] and the other is titled "Ending Nurse to Nurse Hostility" and authored by Bartholomew[24]. Both texts offer techniques on how to overcome this challenging issue. Table 3 represents intervention strategies and summarizes some key points in the textbooks.

Table 3. Intervention strategies to address incivility

Briles, 2009	Bartholomew, 2006
-Acknowledging that behavior problems exist -Identifying individuals and/or departments the are the creators of incivility -Documenting the actions clearly -Meeting with them and stating the behaviors/issues, what the expectations are, the time frame that improvements and changes must be completed by, and the consequences if they are not -Remembering this is regarding business (or yourself), not a time to invoke a buddy-buddy style: this is serious -Keeping pleasantries to a minimum	-Leveling the playing field (decreasing stratification) -Empowering staff by increasing voice or agency -Raising awareness -Increasing self-esteem -Creating an open communication network -Providing opportunities for reflection -Increasing social support networks -Bringing to light the problem by bringing the consequences into the open.

Source: Brilles[23], and Bartholomew[24]

CRNA Incivility and Mobbing

In the field of Nurse Anesthesia, certified registered nurse anesthetists (CRNAs) have specific responsibilities that are unique within the nursing profession. Due to the nature of the profession, the responsibilities of the CRNA are stressful. CRNAs make critical decisions about the care of the surgical patient. Adding incivility to the existing stress makes functioning as a CRNA even more challenging.

Only two studies on incivility involving CRNAs were identified.

Study #1.

Sakellaropoulos et al used a workplace aggression questionnaire to assess various issues. The researchers sent 700 CRNAs a questionnaire; all of the CRNAs were active AANA (American Association of Nurse Anesthetists) members, working full- or part-time. The questionnaire was mailed via the US Postal Service. Only 29.3% of the CRNAs responded. Of the 205 respondents, most participants were white (91%). Approximately 80.4% had no supervisory responsibilities, and approximately 84% worked in a city with a population greater than 60,000 people. Over 80% of the CRNAs reported that they experienced some type of incivility. In 58.4% of the cases, supervisors perpetrated aggression, and in 36.6% of the cases, coworkers perpetrated the aggression.

There were statistically significant relationships between gender and verbal aggression, gender and active aggression, and gender and passive aggression. Specifically, females were more likely to experience aggression than males.

Aggression decreased with advancing age. CRNAs experiencing aggression were more likely to be between the ages of 21 and 39, as compared to age 40 and

over. The authors found a positive correlation between stress at the job site and verbal direct and active aggression. There were no associations between aggressive behaviors and job category, level of supervisory responsibility, bargaining union status, size of city, and years of service.

In addition to the quantitative analysis above, the author used qualitative content analysis because several of the questions were open-ended. By using open-ended questions, the authors were able to collect data on defective workplace aggression and its effects on patient safety. Some responses related to aggressive behaviors were: "verbal, abusive, militant anesthesiologists in charge," "obscenities," "not being relieved for breaks," and "older CRNAs being given bad assignments or being made to feel bad." Some CRNAs stated that due to surgeons playing loud music in the operating room (OR), working conditions in the OR were unsafe. The authors also discussed that aggression could prevent the institutional promotion of CRNAs. CRNAs were also made to feel that they were incompetent, especially by the comments physicians made about their abilities.

In summary, the participants found CRNAs were victims of different types of uncivil behaviors. Females and younger adults were more likely to be the victims of incivility compared to males and older adults.[17]

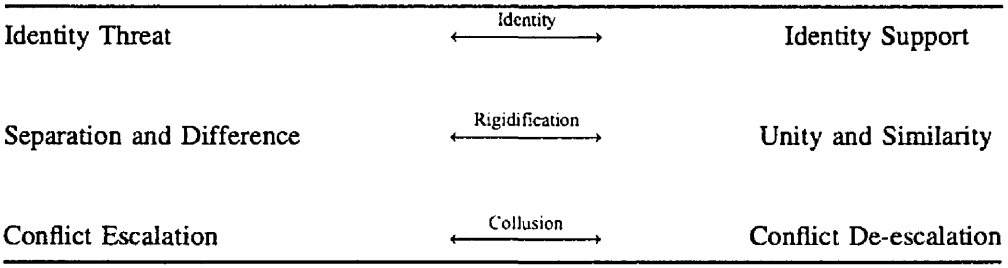
Study #2.

A qualitative study, published by Katz-Jameson was conducted involving 8 CRNAs and 8 anesthesiologists. The anesthesia providers in this study were from 3 hospitals: 2 community nonprofit hospital and 1 academic institution. The authors developed an interview protocol. The interview process was structured; however,

the interviewees were allowed to deviate from the questions in order to stimulate discussion. The interview time duration ranged from 30 to 90 minutes. All interviews were recorded and transcribed on 250 pages.

The authors explored the formation of conflicts between CRNAs and anesthesiologists. They used the Northrups stages of conflict. Northrup identifies four stages of intractable conflict. They are threat, distortion, rigidification (which in this case, controlling ones decisions in practice) and collusion. As individuals progress though each stage, de-escalation becomes less likely (meaning the longer one is in conflict the less likely the parties will be to merge towards a more harmonious working relationship). The Northup's model may be conceptualized with the following diagram in Figure 4.

Figure 4. Northup's model of conflict



Source: Katz-Jameson[25]

The study described the interactions between anesthesiologists and CRNAs. It sought to identify what may lead to workplace conflict. This study found that CRNAs and anesthesiologists had good working relationships and could perform their tasks effectively.

However, the study did identify some sources of conflict. CRNAs felt that they did not need to be supervised by anesthesiologists, and anesthesiologists

tended to devalue the education and expertise of CRNAs. The emphasis in the study was placed on the dominance of one group (i.e. anesthesiologists) over the other (i.e. CRNAs). This study found that CRNAs and anesthesiologists engaged in communication that could escalate conflicts. Such communication resulted in decreased trust between the two groups.

To resolve issues between the two groups, the authors recommended open discussions about patient care decisions in private settings. Both parties should feel comfortable asking questions without using threating and demeaning language. It should be emphasized that while in the workplace, the two groups have common goals. More importantly, anesthesiology departments should reduce barriers to stimulate communication. For example, there should be common break rooms for the CRNAs and anesthesiologists.

The authors also encourage a grass root movement to solve the conflict between CRNAs and anesthesiologists. In addition, student CRNAs and anesthesia residents should take part in workshops to learn about workplace incivility and engage in role-playing to support a collegial environment.[25]

Gaps in the research

Only 2 articles focused on CRNAs and incivility. Sakellaropoulos et al used qualitative and quantitative information to study issues such as the prevalence of workplace aggression and the demographic factors associated with aggression. The study by Katz-Jameson, a qualitative study, explored the conflict between CRNAs and anesthesiologists.

There are obvious gaps in the literature. No studies have been conducted on the conflict that can occur between patients and CRNAs, the prevalence of different types of incivility, the causes of incivility in nurse anesthesia, and the interventions needed to address the problems related to workplace incivility in anesthesia.

It should also be noted that the article by Chipas and McKenna, investigated factors contributing to stress and burnout among CRNAs.[18] Surprisingly, the researchers asked CRNAs about various sources of stress such as starting school, quitting a job, having a death in the family, having a child, and going through divorce and retirement. However, the researchers did not ask about incivility. In the study, a total of 28,000 surveys to CRNAs were mailed; only 26% of the CRNAs responded. Using the Stress and Burnout survey, the average stress level was 4.7 on a scale of 10. Approximately 48% experienced stress associated with work issues. Approximately a third of the CRNAs sought out professional help to deal with their stress. Since the authors omitted incivility as a possible source of stress and prior research showed that at least two-thirds of employees including nurses and CRNAs experience stress, further research in the area of incivility and stress is needed.

No research has been conducted in the State of Michigan, where there has been higher unemployment rate than the national average, as well as devastating economic changes over the last 5 years. Michigan's unemployment and depressed economy could impact workplace incivility in Michigan; as the conceptual framework on the causes of incivility (Figure 1) shows, social and situational factors can contribute to incivility. The economy of the state effects most sectors; healthcare is no exception. Cut backs within Michigan's health care facilities have

been reported[26]. It is possible that the limited resources, cost containment, production pressures, and heightened staffing efficiency have changed the behaviors between the individuals employed within facilities. This behavioral change coupled with the changing demographics of the patient population (older with more comorbidities) has exerted a compounding effect on work group dynamics. The three articles involving CRNAs referenced in this literature review do not fully explore workplace incivility or mobbing behaviors.

Incivility is significant and may be the result of the changing economy. However, according to the Katz-Jameson article, which focused on the interactions between CRNAs and Anesthesiologist, the tension between the two professionals may be the result of mutual and concurrent need for autonomy.[25]

Clearly there is a lack of studies regarding the prevalence and causes of incivility, the influence of incivility on the CRNA, and the interventions needed to address incivility within CRNA work groups. It is the goal of this research to fill some of the gaps in the literature in this area.

Chapter III

Research questions and hypotheses:

1. What is the prevalence of incivility and burnout experienced by CRNAs in Michigan?

I hypothesize that the prevalence of incivility and burnout will be significant, because of the influence of situational factors, such as a struggling Michigan economy, as outlined in Figure 1 of the literature review.[9] Not only has the state economy been hit hard by the recent economic down turn, but there have been accompanying cuts within the state's healthcare budgets.[26] Due to the fact that more than 65% of the general work force has experienced workplace incivility[27], I expect that the CRNA work force will have similar results and report incivility rate of 60-90% in all sub-categories. Incivility experienced by CRNAs may arise from interactions from a variety of situations. It is also expected that CRNAs will report conflicts with physicians and supervisors at greater frequency, as apposed to conflicts with coworker CRNAs.

2. What is the influence of workplace incivility on burnout among CRNA practitioners?

Hypothesis: Incivility is associated with increased levels of burnout in CRNAs.

The work of a CRNA requires the ability to work with many professionals. Exchanging of required information is key to the delivery of quality care. CRNAs work in a fast paced, technical environment; they must be able to recognize changes in patients, and address situations that develop with appropriate interventions, all while communicating with other team members and physicians. The daily routine

includes multitasking, performing duties in multiple roles, and delivering quality care to patients. Production pressures imposed by health care facilities, to eliminate waste, require all members to work harder and more effectively, together as a team. This new healthcare economic reality has added to the pressures felt by health care professionals and most likely contributes to increase stress and burnout at work.

There are no publications, to my knowledge, that specifically examine the effects of incivility on burnout rates among CRNAs. However, several research studies have been published that describe the effects of stress and burnout within the nursing profession[22, 28, 1, 29] as well as studies that focus on stress and burnout in physicians.[30] CRNAs work in a unique environment, and hold additional responsibilities beyond the scope of nursing, which places CRNAs in a category that is unique to themselves and separate from others within the nursing profession. I hypothesize that working in an uncivil work environment will negatively affect the emotional well being of CRNAs. It is the hope of this study to identify how workplace incivility may influence burnout rates among CRNA population in the state of Michigan.

3. <u>What are the intervention strategies to prevent and combat incivility experienced by CRNAs?</u>

Hypothesis: Overall, I expect that the CRNAs will suggest interventions, such as methods to prevent personal injustices and techniques to defuse situations that may likely escalate into uncivil interactions. I believe that CRNAs will offer suggestions such as the development of a Code of Conduct policy that outlines appropriate interactions among coworkers; as well as steps to set up collaborative work

relations based on trust and respect, as in the study of Lewis and Malecha.[15] I believe that CRNAs will offer coping techniques, on how to manage an uncivil work environment, similar to those presented by Pompili et al, as well as Yildrim et al, as mentioned in the literature review.[20, 21]

It was interesting to see that a theme of jealousy and envy have been linked as a root association of being subjected to bullying at work.[31, 13] I believe that Michigan CRNAs will report similar suggestions when responding to the open-ended questions and that this will support hypothesis #2.

Chapter IV

Methodology and Design:

Participants:

The sample of questionnaire recipients was CRNAs who are active members of the American Association of Nurse Anesthetists (AANA) in good standing, and live in the state of Michigan. Each state has a state association within the AANA. Michigan Association of Nurse Anesthetists (MANA) is the state of Michigan's sub group of the AANA. There are approximately 1,700 members of MANA. Approximately 96% of Michigan's CRNAs are active members of MANA.[32] MANA has a database of all its members' email addresses, which provided access to 96% of CRNAs in Michigan.

MANA was supportive of this research project and the association's manager and administrative assistant emailed the surveys and an accompanying letter of explanation to all its members. Our contact individuals at MANA were Jennifer Dickie, the association's manager and Jessica Hardache, the association's administrative assistant. The address of MANA is 1390 Eisenhower Place, Ann Arbor, MI 48108. MANA's phone number is (734) 477-0328. MANA's web site is: http://www.miana.org/.

The survey, with an introductory email, was sent out to all MANA members. It was expected that roughly 10-14% of recipients would respond by completing the questionnaire, based on the reported response rate of MANA membership by MANA officials.[32]

Survey:

A link to a Qualtric© survey was included in the email. Qualtric© was chosen as the software program to conduct this survey, as it is commonly used among universities and was strongly encouraged by the University of Michigan-Flint, Institution Review Board. The survey tools used in the Qualtric© questionnaire were the questions from the Nursing Incivility Scale[6] as well as the Copenhagen Burnout Inventory.[33]

Measures:

Workplace incivility has become a significant problem facing healthcare facilities. Due to the fact that the problem of workplace incivility is very complex, researchers have developed several incivility and mobbing scales to understand and report the problem in literature. The most widely used incivility scales are the Multidimensional Incivility Scale, the Nursing Incivility Scale, and the Mobbing Scale.

The Nursing Incivility Scale has been successfully used to measure incivility within the nursing profession. Since CRNAs are advance practice nurses, this research study utilized the Nursing Incivility Scale to measure the prevalence of incivility experienced by CRNAs in the state of Michigan. Guidroz et al utilized the Nursing Incivility Scale and reports that "all subscales showed acceptable reliability and demonstrated acceptable convergent and discriminate validity with other variables."[6 (p.176)] Guidroz et al. tested the reliability and validity of the Nursing Incivility Scale (NIS) among 163 hospital nurses. They developed the scale by modifying the Multidimensional Incivility Scale (MIS)(Burnfield, Clark, Devendorf, and Jex, 2004) and by evaluating qualitative and quantitative information on uncivil behaviors. The NIS includes items in several dimensions: general, nurse,

supervisor, physician, and patient (Table 1). The Cronbach alpha of the different subscales range from 0.81-0.94. They provided information to show convergent and discriminant validity. The authors concluded that the scale was reliable and valid.[6] This was the rationale for using this scale to attempt to measure the prevalence of incivility in this study of CRNAs. It was the goal to use the information collected from the Nursing Incivility Scale (Appendix 2) to help answer research question #1 and 2.

The Copenhagen Burnout Inventory (CBI) measures burnout in three dimensions: personal, work, and client. The Cronbach alpha of the different subscales ranged from 0.85-0.87. Researchers have concluded that the CBI is a reliable and valid tool to assess burnout among employees of human service work.[33] This was the rationale for using this scale to measure the prevalence of burnout in this study of CRNAs. The work burnout subscale of the CBI was used to examine burnout that originates from the work sources to measure burnout in this CRNA study. It was the goal to use the information collected from the Copenhagen Burnout Inventory (Appendix 3) to assess work related burnout and to address research question #1 and 2.

Analysis Plan:

The analysis plan to address hypothesis #1 was to report the prevalence of incivility and burnout experienced by Michigan CRNAs, in percentages according to sub scales of the NIS and the results of the CBI.

To assess the association between incivility and burnout (hypothesis #2), cross-tabs were run to determine what percentages of people experience both

incivility and burnout. The analysis was performed in consultation with a biostatistician from the University of Michigan CSCAR (Center for Statistical Consultation and Research). SPSS (Statistical Package for Social Sciences) version 21 programming was used to analyze the collected data from the Qualtics© program used in this survey.

To address hypothesis #3, responses were categorized by type of intervention (such as individual and organizational) and/or by source type experienced by CRNAs (general employees, non-employee, CRNA colleagues, CRNA supervisors and physicians). Duplicate responses were omitted.

Ethical Considerations:

University of Michigan-Flint, Institutional Review Board committee approval was obtained, as well as proper institutional protocol followed, prior to dispersion of email questionnaires to MANA CRNA recipients. This research adhered to confidentiality regulations outlined by the IRB of the University of Michigan-Flint. No experimentation or interventions took place, as this was a collection of Michigan CRNA opinions via mass email survey. A Qualtric© survey tools was used to collect information from the population of CRNAs. The survey was sent to all Michigan CRNAs with email addresses on file, within the MANA database.

Participants were offered the opportunity to withdraw from this study at any point while taking the survey. In addition, the email introducing the survey provided contact information to the AANA Wellness committee, if the participants felt the need for emotional support before, during, or after taking the survey. That

contact information included in the introduction email was offered via the following link: http://www.aana.com/resources2/health-wellness/Pages/Getting-Help.aspx

Chapter V

Results:

After University of Michigan-Flint Institutional Review Board approval, as well as permission for use of research survey tools, a Qualtrics© survey was administered by way of blast email as described in Chapter IV. On October 8, 2012, MANA disseminated the link to the Qualtrics© survey to approximately 1700 CRNA, MANA members. From October 8, 2012 to November 12, 2012, 274 MANA CRNAs submitted responses electronically. On November 13, 2012, a reminder email was sent to all MANA members, thanking those who completed the survey, as well as encouraging others who had not had the opportunity to fill out the survey, to do so. From November 13 to November 26, an additional 111 MANA CRNAs submitted responses electronically. In total, 385 surveys were collected from October 8 through November 25th. The response rate was 22.6%. Table 4 summarizes the information on the quantity of surveys collected per week.

Table 4. Summary: Responses by Date:

Duration of Survey:	Number of Responses per week of survey:
Week 1, October 8-14, 2012	226 (58.7%)
Week 2, October 15-21, 2012	24 (6.2%)
Week 3, October 22-28, 2012	8 (2.1%)
Week 4, October 29-November 4, 2012	14 (3.6%)
Week 5, November 5-11, 2012	2 (.01%)
Week 6, November 12-18, 2012	101 (26.2%)
Week 7, November 19-25, 2012	10 (2.5%)
Total responses:	385

Characteristics of Respondents:

The majority of respondents were female (69%), actively working as CRNAs (98%). Most respondents worked more than 40 hours per week (52%), while those who worked between 20-40 hours per week represented 45% of the respondents and lastly those who worked less than 20 hours per week represented 2% of the respondents. Respondents' years of employment as a CRNA Practitioner varied and are reported in Table 5.

Table 5. Respondents' Duration of Employment as CRNA Practitioner.

Years of Employment as a CRNA	Percentage
Less than 5 years	16%
5-10 years	17%
11-15 years	12%
16-20 years	19%
21-25 years	12%
26-30 years	11%
31-35 years	11%
Greater than 35 years	2%

Most respondents were hospital employees (76%), 11% worked within a group practice model, 8% work as an independent contractor and 4% classified themselves as "other." Most respondents predominantly worked as direct patient care clinicians (91%), while 5% reported they worked as managers, 3% in a role of education and 1% classified themselves as "other."

Research Questions #1:

The first question asked: What is the prevalence of incivility and burnout experienced by CRNAs in the state of Michigan?

Incivility Sources and Measurement:

CRNA survey respondents were asked to report incivility experienced from several sources during the realm of work. These potential incivility sources were subdivided into 4 sections (in alignment with the Nursing Incivility Scale). The first section of potential CRNA incivility was incivility due to the interactions the CRNA respondents had with general employee personnel or non-employee individuals. These sources included, but were not limited to ancillary, supportive or paraprofessional employees, certain professional employees including nurses outside of the CRNA profession, patients and patients' family members. Table 6 summarizes the results of questions that measure incivility, as a result of interactions CRNA respondents had with general employee personnel, or non-employee individuals while at work. The results in this section suggest that the general employee or non-employee individuals were the sources of moderately high levels of incivility for the CRNA respondents. (Table 6 describes the quantitative results of incivility from general employee or non-employee sources in Likert format.)

Table 6. CRNA Incivility Source: General Employee or Non-Employee Individuals:

Questions Regarding: General Employee or Non Employee Individuals:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
Hospital employees raise voices when frustrated.	3.4%	14.2%	19.3%	53.9%	9.2%	100.0%
People blame others for mistakes or offenses.	1.4%	13.9%	24.2%	48.3%	12.2%	100.0%
Basic disagreements turn into personal verbal attacks on other employees.	1.4%	13.9%	24.2%	48.3%	12.2%	100.0%
People make minority jokes about minority groups.	12.3%	37.2%	17.0%	30.2%	3.4%	100.0%
People make jokes about religious groups.	14.2%	38.3%	18.7%	25.7%	3.1%	100.0%
Some employees take things without asking.	8.6%	29.5%	21.4%	35.7%	4.7%	100.0%
Employees don't stick to an appropriate noise level (e.g. talking too loudly).	1.7%	13.1%	17.2%	50.8%	17.2%	100.0%
Employees display offensive body language (e.g. crossed arms, body posture).	1.9%	25.3%	30.1%	36.2%	6.4%	100.0%

Averages of responses	*5.6%*	*23.2%*	*21.5%*	*41.1%*	*8.5%*	

The severity of incivility from general employee, non-employee sources and frequency for which it is reported is further described in Figure 5. The X (horizontal) axis represents severity of workplace incivility from general employee, non-employee sources (low incivility on the left and high incivility on the right). The Y (vertical) axis represents frequency for which incivility was reported. Figure 5 indicates that CRNAs experience a moderately high level of incivility from employee, non-employee sources.

Figure 5, Bar Graph, Incivility Source: Employee, Non-Employee.

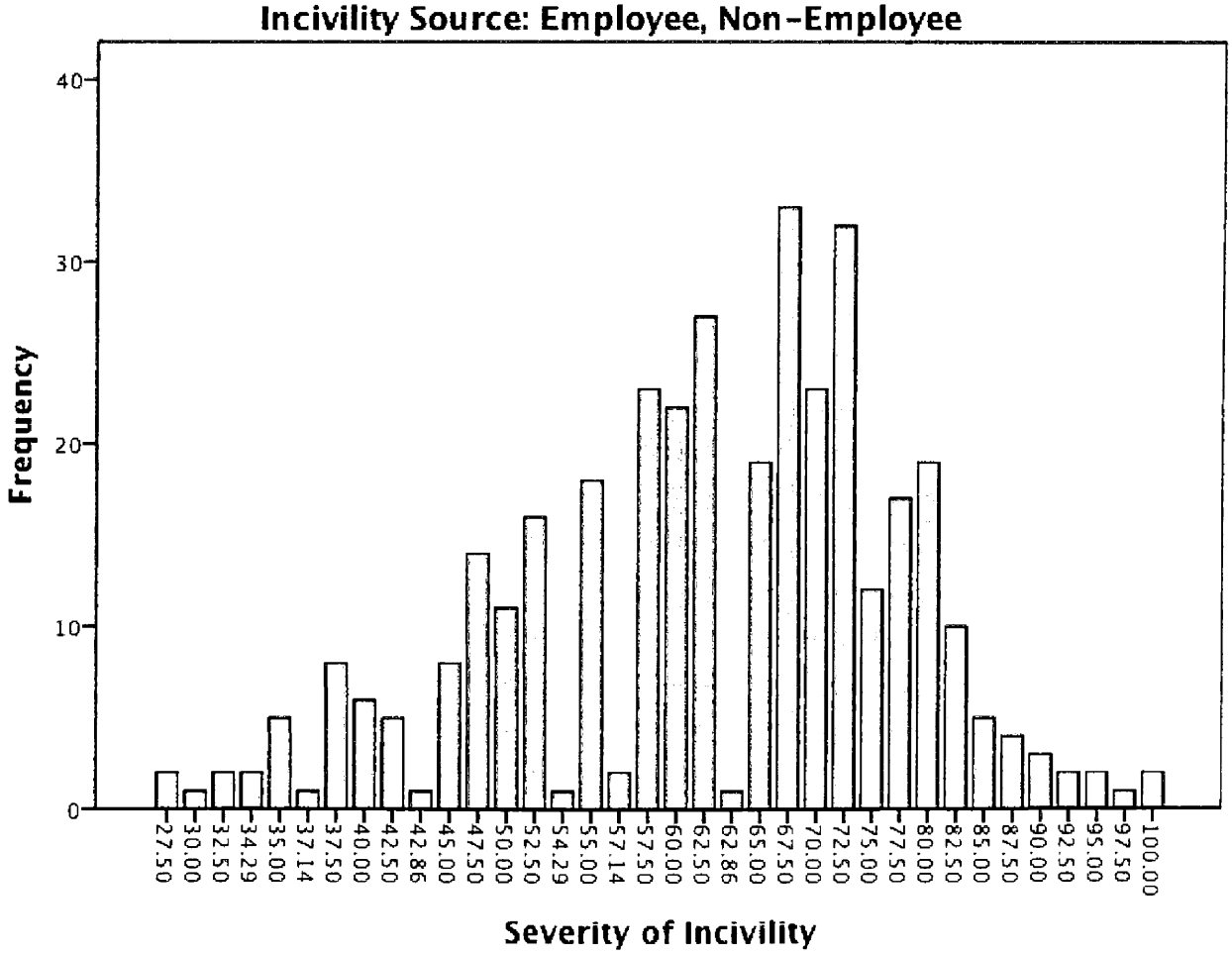


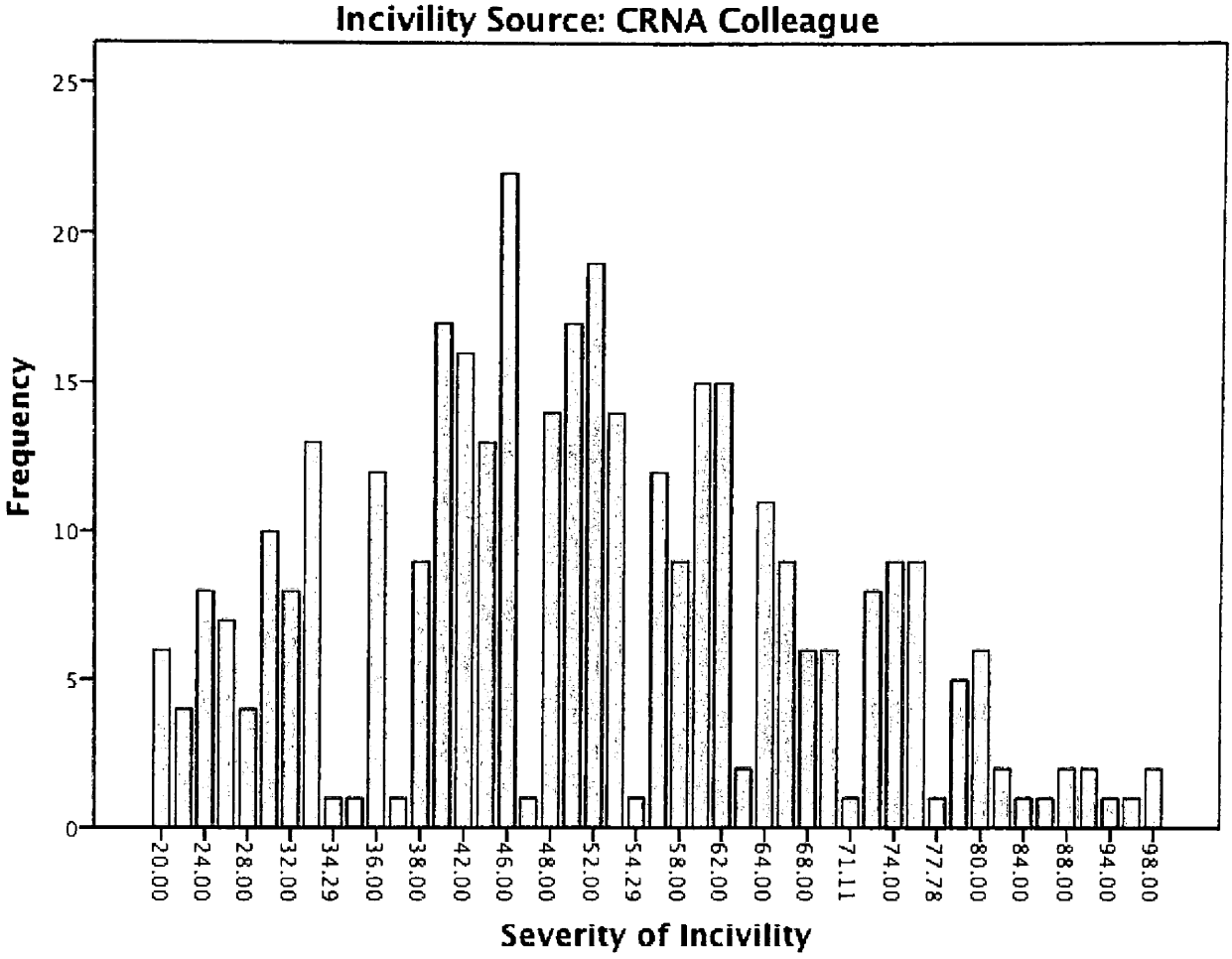
Table 7 summarizes the results of the questions that measure incivility as a result of interactions CRNA respondents had with other CRNA practitioners while at work. The results in this section suggest that other CRNA practitioners were the source of moderately low levels of incivility. (Table 7 describes the quantitative results of incivility from other CRNA sources in Likert format.)

Table 7. CRNA Incivility Source: Other CRNA Practitioners:

Questions Regarding: Other CRNA Practitioners:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
CRNAs in our department argue with each other frequently.	27.4%	43.5%	13.3%	12.7%	3.1%	100.0%
CRNAs in your department have violent outbursts or heated arguments in the workplace.	37.1%	36.3%	10.8%	13.0%	2.8%	100.0%
CRNAs in your department scream at other employees.	42.3%	36.9%	10.8%	8.5%	1.4%	100.0%
CRNAs in your department gossip about one another.	5.9%	17.6%	13.3%	40.2%	22.9%	100.0%
CRNAs in your department gossip about their supervisor at work.	8.2%	17.0%	14.5%	40.1%	20.2%	100.0%
CRNAs in your department bad-mouth others in the workplace.	4.2%	21.0%	19.0%	40.5%	15.3%	100.0%
CRNAs in your department spread bad rumors.	19.4%	31.6%	21.4%	21.1%	6.6%	100.0%
CRNAs in your department make little contribution to a project, but expect to receive credit for working on it.	27.4%	35.6%	24.5%	8.3%	4.3%	100.0%
CRNAs in your department claim credit for your work.	31.1%	46.4%	14.0%	6.8%	1.7%	100.0%
CRNAs in your department take credit for work they did not do.	28.3%	46.2%	13.3%	10.5%	1.7%	100.0%
Averages of Responses	*23.1%*	*33.2%*	*15.5%*	*20.2%*	*8.0%*	

The severity of incivility between CRNA colleagues and frequency for which it is reported is further described in Figure 6. The X (horizontal) axis represents severity of workplace incivility from CRNA Colleague sources (low incivility on the left and high incivility on the right). The Y (vertical) axis represents frequency for which incivility was reported. Figure 6 indicates that CRNAs experience a moderately low level of incivility from CRNA colleague sources.

Figure 6, Bar Graph, Incivility Source: CRNA Colleague.



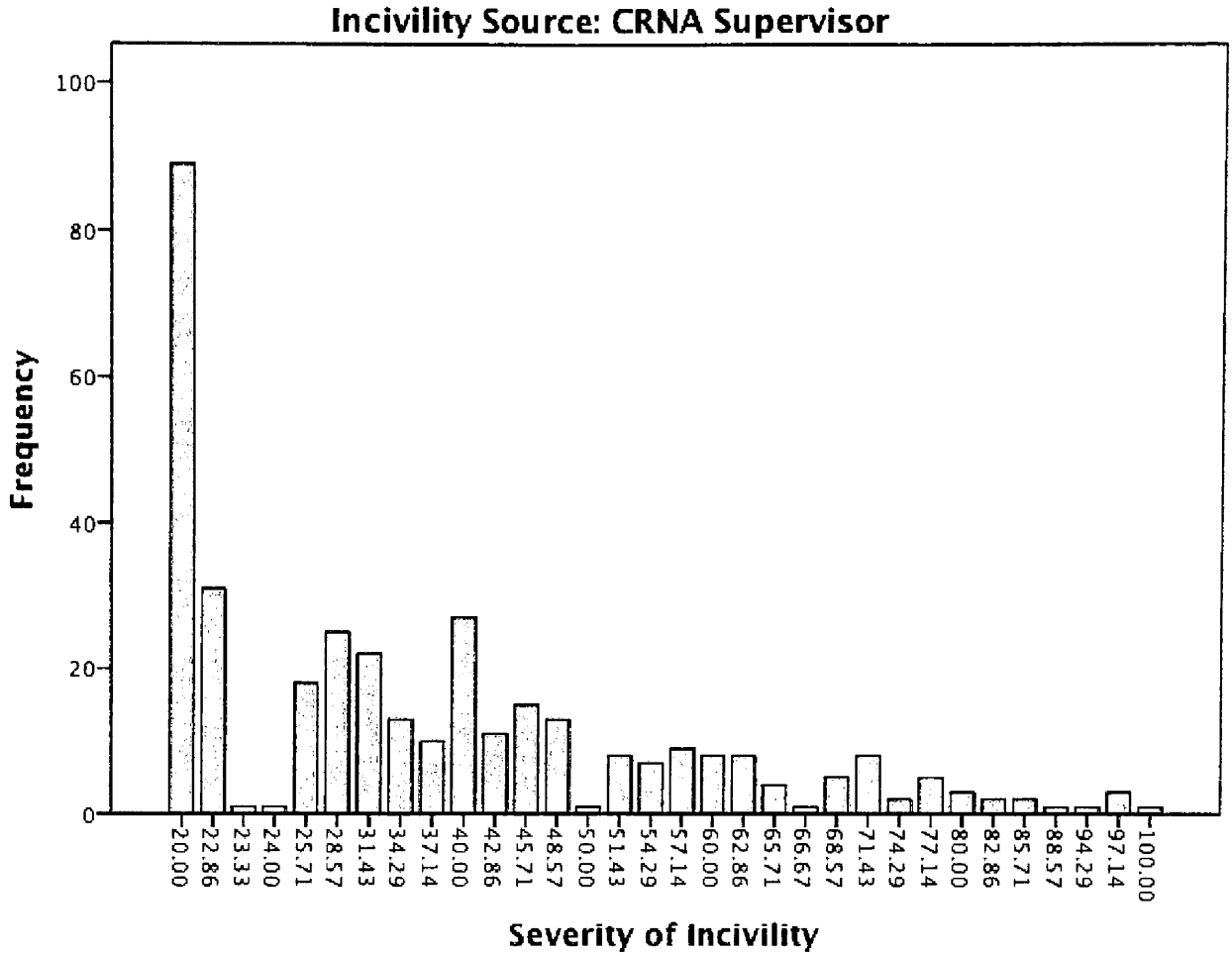
The next section of potential CRNA incivility was incivility due to the interactions the CRNA respondents had with their CRNA supervisors. Table 8 summarizes the results of the questions that measure incivility as a result of interactions CRNA respondents had with their CRNA supervisors while at work. The results in this section suggest that the CRNA supervisors are the source of low levels of incivility for the CRNA respondents. (Table 8 describes the quantitative results of incivility from CRNA supervisor sources in Likert format.)

Table 8: CRNA Incivility Source: CRNA Supervisors:

Questions Regarding: CRNA Supervisors:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
My supervisor is verbally abusive.	58.0%	25.9%	7.7%	5.4%	3.1%	100.0%
My supervisor yells at me about matters that are not important.	61.9%	23.3%	6.8%	6.0%	2.0%	100.0%
My supervisor shouts or yells at me for making mistakes	62.0%	25.8%	7.9%	2.8%	1.4%	100.0%
My supervisor takes his/her feeling out on me (e.g. stress, anger, "blows off steam").	57.5%	24.1%	9.1%	6.5%	2.8%	100.0%
My supervisor does not respond to my concerns in a timely manner.	34.6%	30.6%	14.2%	14.4%	6.2%	100.0%
My supervisor factors gossip and personal information into decisions.	36.7%	24.9%	15.8%	16.7%	5.9%	100.0%
My supervisor is condescending to me.	48.3%	26.3%	9.0%	10.2%	6.2%	100.0%
Averages of Responses	*51.3%*	*25.8*	*10.1%*	*8.9%*	*3.9%*	

The severity of incivility from CRNA supervisors and frequency for which it is reported is further described in Figure 7. The X (horizontal) axis represents severity of workplace incivility from CRNA supervisor sources (low incivility on the left and high incivility on the right). The Y (vertical) axis represents frequency for which incivility was reported. Figure 7 indicates that CRNAs experience low levels of incivility from CRNA supervisor sources.

Figure 7, Bar Graph, Incivility Source: CRNA Supervisor.



The last section of potential CRNA incivility source was incivility due to the interactions the CRNA respondents had with physician practitioners. Table 9 summarizes the results of the questions that measure incivility as a result of the interactions CRNA respondents had with physician practitioners while at work. The results in this section suggest that physicians are the sources of moderately high levels of incivility for the CRNA respondents. (Table 9 describes the quantitative results of incivility from physician sources in Likert format.)

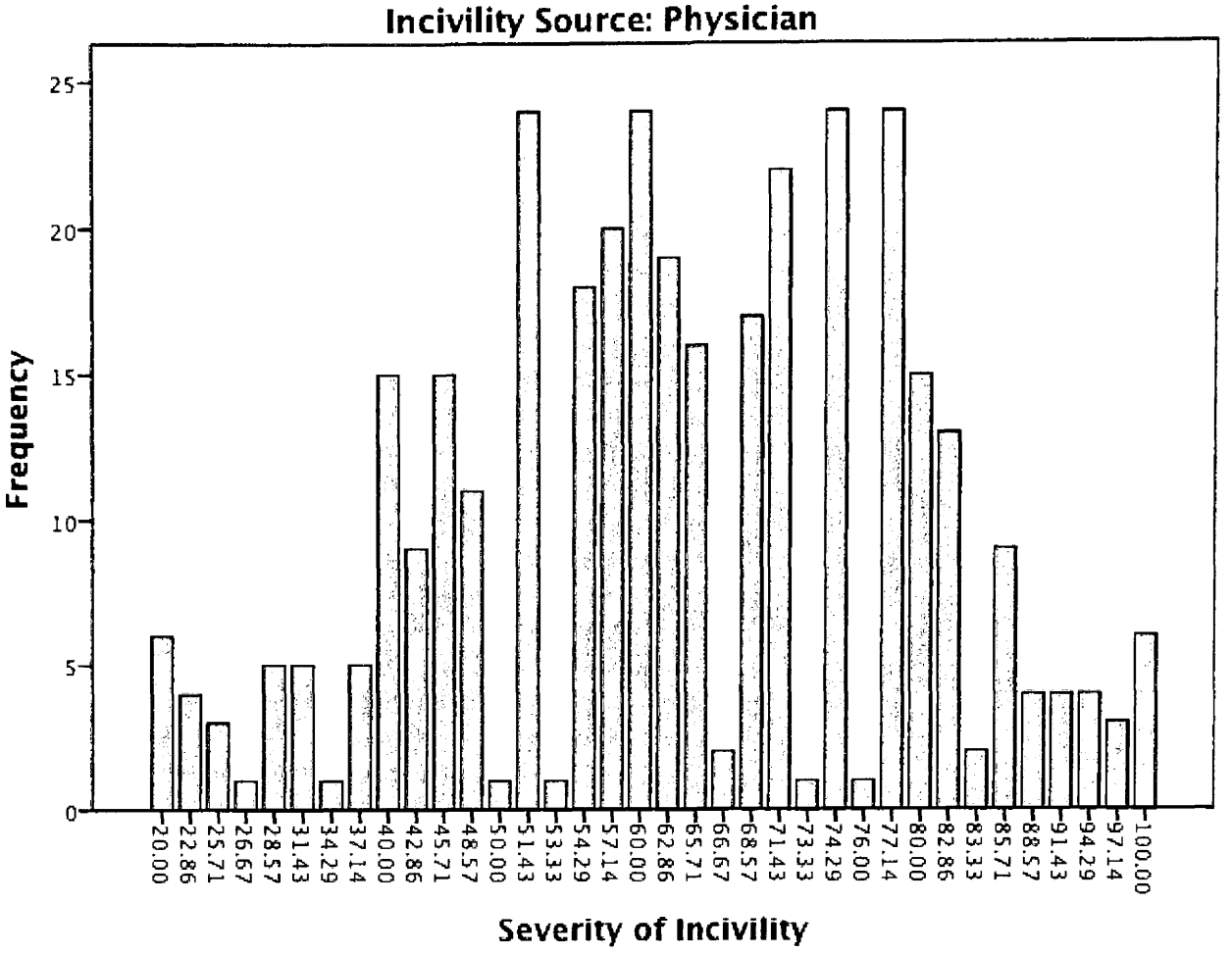
Table 9. CRNA Incivility Source: Physicians:

Questions Regarding: Physicians:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total
Some physicians are verbally abuse.	3.7%	8.0%	8.8%	56.7%	22.8%	100.0%

Physicians yell about matters that are not important.	5.1%	19.0%	19.3%	43.8%	12.8%	100.0%
Physicians shout or yell at me for making mistakes.	13.4%	38.5%	20.5%	23.4%	4.3%	100.0%
Physicians take their feeling out on me (e.g. stress, anger, "blows off steam").	11.1%	30.6%	17.7%	34.0%	6.6%	100.0%
Physicians do not respond to my concerns in a timely manner.	9.1%	41.0%	28.5%	17.4%	4.0%	100.0%
Physicians treat me as if my time is not important.	8.5%	24.6%	14.2%	36.0%	16.7%	100.0%
Physicians are condescending to me.	11.4%	26.7%	24.7%	27.0%	10.2%	100.0%
Averages of Responses	*8.9%*	*26.9%*	*19.1%*	*34.0%*	*11.1%*	

The severity of incivility from physician sources and frequency for which it is reported is further described in Figure 8. The X (horizontal) axis represents severity of workplace incivility from general employee, non-employee sources (low incivility on the left and high incivility on the right). The Y (vertical) axis represents frequency for which incivility was reported. Figure 8 indicates that CRNAs experience a moderately high level of incivility from physician sources.

Figure 8, Bar Graph, Incivility Source: Physicians.



The information presented in Tables 6,7,8 and 9 and further illustrated in Figures 5,6,7 and 8 provide insight as to sources of incivility respondent CRNAs experience. Table 10 show the Mean, Median, and Standard Deviation of Incivility composite scores for each subgroup measured. Table 10 indicates that CRNA respondents experience moderately high levels of incivility from employee, non-employee and physician sources, moderately low levels of incivility from CRNA colleagues and low levels of incivility from CRNA supervisors.

Table 10, Incivility Composite Scores,
Mean, Median, Standard Deviation:

	Employee, Non Employee, Incivility Composite:	CRNA Colleague, Incivility Composite:	CRNA Supervisor, Incivility Composite:	Physician, Incivility Composite:

N	Valid	360	354	355	354
	Missing	17	23	22	23
Mean		63.5139	51.3467	37.6290	62.2661
Median		65.0000	50.0000	31.4286	62.8571
Std. Deviation		13.79827	16.52465	18.59362	17.55576

Professional Burnout Measurement:

CRNA survey respondents were then asked to rate their level of professional burnout. Table 11 summarizes the results of the questions that measure levels of professional burnout experienced and reported by CRNA respondents. The results in this section suggest that CRNA respondents experience and report moderate levels of professional burnout. (Table 11 describes the quantitative results of professional burnout in Likert format.)

Table 11: CRNA Professional Burnout Assessment:

Questions Regarding: Professional Burnout:	To a very high degree	To a high degree	Somewhat	To a low degree	To a very low degree	Total
Is your work is emotionally exhausting?	12.5%	23.2%	43.6%	16.1%	4.5%	100.0%
Do you feel burnt out because of your work?	8.2%	14.2%	32.6%	26.9%	18.1%	100.0%
Does your work frustrate you?	9.1%	12.7%	32.3%	25.5%	20.4%	100.0%

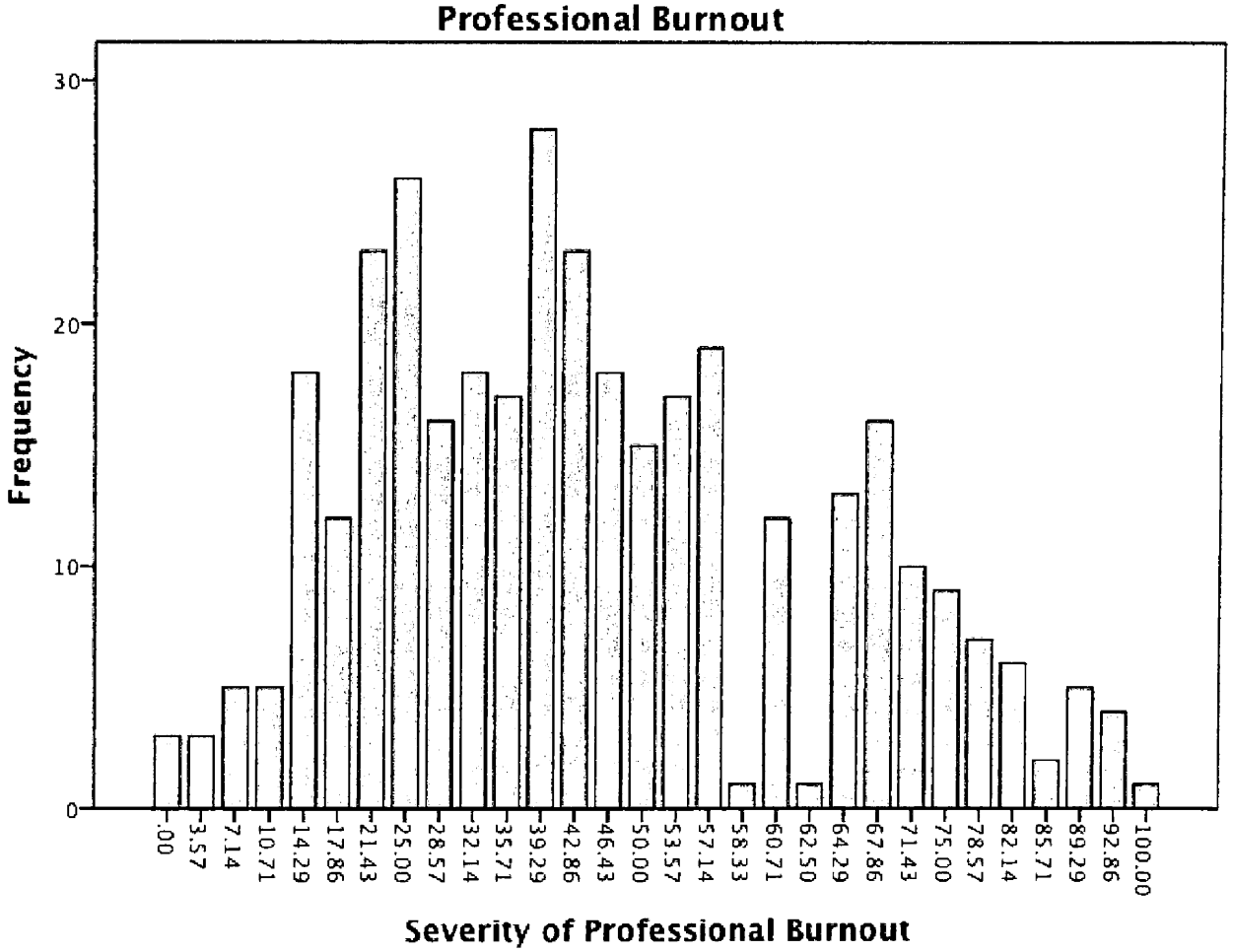
	Always	Often	Sometimes	Seldom	Never/ Always	Total
Do you feel worn out at end of working day?	12.2%	31.8%	41.2%	11.9%	2.8%	100.0%
Are you exhausted in morning at the thought of another day at work?	5.7%	13.4%	29.3%	33.8%	17.9%	100.0%
Do you feel every hour is tiring for you?	2.6%	9.1%	24.4%	45.5%	18.5%	100.0%
Do you have enough energy for family friends during leisure time?	17.3%	42.3%	30.1%	9.7%	0.6%	100.0%
Averages of Responses *	*8.4%*	*17.4%*	*33.9%*	*26.6%*	*13.7%*	

(* Does not calculate in the last Professional Burnout question, as last question is scored in reverse)

The severity of professional burnout and frequency for which it is reported is further described in Figure 9. The X (horizontal) axis represents severity of

Professional Burnout (low burnout symptoms on the left and high burnout symptoms on the right). The Y (vertical) axis represents frequency for which Professional Burnout was reported. Figure 9 indicates that CRNAs report moderate symptoms of professional burnout.

Figure 9, Bar Graph, Professional Burnout.



The information illustrated in Figure 9 is summarized in Table 12 and describes the Mean, Median, and Standard Deviation of Professional Burnout composite scores of the CRNA respondents. Table 12 indicates that CRNAs report moderate levels of professional burnout.

Table 12, Professional Burnout Composite Scores,
Mean, Median, Standard Deviation:

N	Valid	353
	Missing	24
Mean		43.3917
Median		42.8571
Std. Deviation		21.30657

Further investigation revealed additional information from the data collected via this CRNA environment survey. When considering gender and levels of incivility experienced and reported in this study, there appears to be a significant difference between male and female respondents. Female respondents reported they experience higher levels of incivility compared to their male counterpart in this survey. Table 13 describes this relationship based on two-sample t test.

Table 13. Significant Difference between Male and Female in Incivility (based on two sample T test)

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
-2.690	350	.007	-.19688	.07320
-2.625	196.524	.009	-.19688	.07499

Prevalence of Incivility and Burnout:

The overall prevalence of incivility CRNA respondents report appears to vary depending on the source and category of the employee(s) or individual(s), according to the results of the sub-sections of the NIS questions. The overall prevalence of professional burnout symptoms experienced and reported by CRNA respondents appears to be within the moderate range according to the results of the CBI questions. By reviewing Table 6, 7, 8 and 9 CRNA respondents experience incivility from several sources. Most notable sources of incivility reported were from general

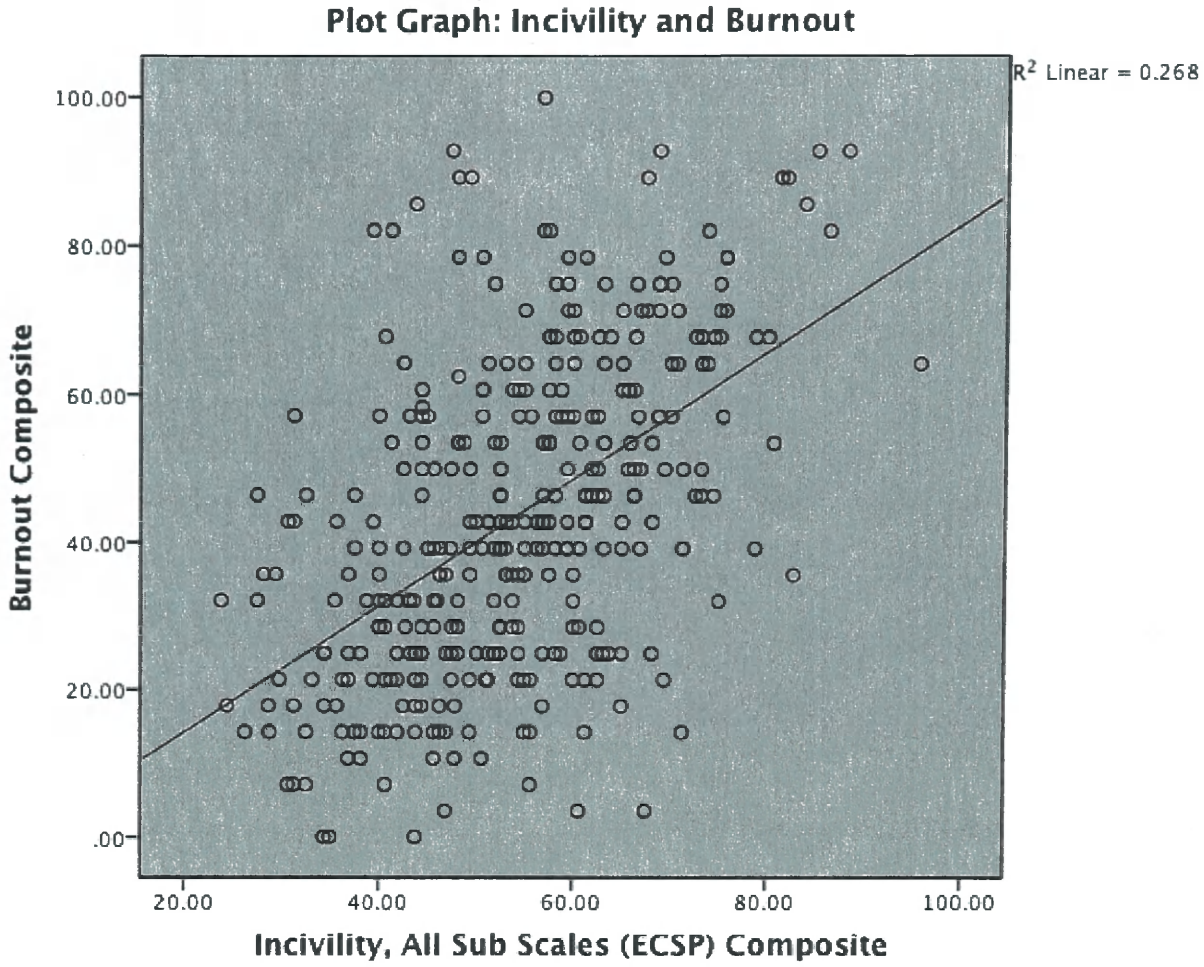
employee personnel or non-employee individuals and physicians. When examining the responses within the general employee, non-employee and physician incivility sections the most common response reported was "Agree" when asked to rate incivility experienced from general employee, non-employee and physician interactions. The CRNA respondents most commonly reported that 41.1% "Agree" that general employee and non-employee are the source of incivility they experience while at work. Similarly CRNA respondents reported that 34% "Agree" that physicians are the source of incivility they experience at work. At a lesser prevalent source of incivility, CRNA respondents reported that other CRNA practitioners were the source of incivility they experience. When examining the responses within the other CRNA practitioner section the most common response reported was "Disagree" when asked to rate incivility experienced from other CRNA practitioner interactions. The CRNA respondents most commonly reported that 33.2% "Disagree" that other CRNA practitioners are the source of incivility they experience while at work. Lastly, the lowest prevalent sources of incivility CRNA respondents experienced and reported was from their CRNA supervisors. When examining the CRNA supervisor section the most common response reported was "Strongly Disagree" when asked to rate incivility experienced from interactions with their CRNA supervisors. The CRNA respondents most commonly reported that 51.3% "Strongly Disagree" that CRNA supervisors are the source of incivility they experience while at work.

CRNA respondents were also asked to respond to questions that rate their potential for the development of professional burnout. The CRNA respondents most

commonly reported (33.9%) they "Sometimes" feel symptoms that suggest the development of professional burnout, according to the Copenhagen Burnout Inventory[34]. By reviewing Table 10, CRNA respondents reported symptoms suggestive of moderate levels for professional burnout.

Research Question #2:

To address the second research question: What is the influence of workplace incivility on professional burnout among CRNA practitioners? The association between incivility and burnout was determined by downloading the composite scores of the Qualtics© survey, utilizing the cross-tabs function within SPSS (Statistical Package for Social Programming) version 21 set with manufacture default setting. As a result the following graphical image was created. Figure 11 shows the relationship of workplace incivility experienced by CRNA respondents from all sub-section sources: ECSP (employee, non-employee, CRNA colleague, supervisor and physician) and the reported symptoms of professional burnout.
Figure 10, Plot Graph: Workplace Incivility and Professional Burnout.



By examining the above graph, one can see the relationship between workplace incivility and professional burnout. The X (horizontal) axis represents a continuum of workplace incivility. (Low workplace incivility on the left and high incivility on the right of the graphical image). The Y (vertical) axis represents a continuum of professional burnout. (Low symptoms of professional burnout are reported at the bottom, while more symptoms of professional burnout are reported at the top of the graphical image). The line across the graph represents the most common relationship between workplace incivility and professional burnout. Clearly the relationship is a linear and direct. As the respondent experiences and reports lower levels of workplace incivility, the potential for professional burnout is

reduced and in contrast, as the respondent experiences and reports more workplace incivility, the potential for professional burnout is elevated.

Table 14 shows the correlation between workplace incivility with all sub-sections reported: ECSP and Professional Burnout (based on Pearson Correlation). The correlation is significant at the 0.001 level.

Table 14, Correlation between Workplace Incivility: All Sub Scales
ECSP and Professional Burnout.
(Based on Pearson Correlation)

		Incivility ECSP Composite	Burnout Composite
Incivility ECSP Composite	Pearson Correlation	1	.518**
	Sig. (2-tailed)		.000
	N	353	352
Burnout Composite	Pearson Correlation	.518**	1
	Sig. (2-tailed)	.000	
	N	352	353

**. Correlation is significant at the 0.01 level (2-tailed).

The association between workplace incivility and professional burnout, when controlling for gender, type of employment arrangement, type of employment classification, hours worked per week and years on the CRNA profession, was assessed. Table 15 provides detail of all parameters as independent and professional burnout as the only dependent variable.

Table 15. Association between Workplace Incivility and Professional Burnout, controlled for gender, type of employment arrangement, type of employment class, hours worked per week and years in the CRNA profession.

Estimates of Fixed Effects [a]

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	-16.356413	11.593950	337	-1.411	.159	-39.162041	6.449214
[Q3=SEX=Male]	-1.982468	2.323373	337.000	-.853	.394	-6.552609	2.587672
[Q3=SEX=Female]	0[b]	0	.	.	.	.	

[Q7=Hospital Employee]	-.319377	5.178188	337.000	-.062	.951	-10.505020	9.866265
[Q7=Group Practice]	-2.271902	5.876879	337	-.387	.699	-13.831889	9.288085
[Q7=Independent Contactor]	-4.635550	6.126887	337.000	-.757	.450	-16.687310	7.416210
[Q7=Other]	0[b]	0	.	.	.	.	.
[Q8=Clinical]	11.240523	9.613360	337.000	1.169	.243	-7.669228	30.150274
[Q8=Managerial]	16.894262	10.811641	337	1.563	.119	-4.372542	38.161066
[Q8=Educational]	14.385753	11.258315	337.000	1.278	.202	-7.759670	36.531177
[Q8=Other]	0[b]	0	.	.	.	.	.
Incivility Composite ECSP	16.986368	1.585707	337.000	10.712	.000	13.867237	20.105499
Q5 Hours Composite	1.323384	1.982102	337.000	.668	.505	-2.575467	5.222235
Q6 Years worked Composite	.199349	.512961	337	.389	.698	-.809660	1.208358

a. Dependent Variable: Burnout composite.

b. This parameter is set to zero because it is redundant.

The only significant finding associated with the potential of professional burnout is workplace incivility. Gender, type of employment arrangement, type of employment classification, hours worked per week and years in the CRNA profession are not associated with the potential for professional burnout (Linear regression).

The relationship between burnout reported based on work type was highest for manager CRNAs followed by educator CRNAs and least for clinical CRNAs.

Research Question #3

The last research question this study asked was: What are the intervention strategies to prevent and combat incivility experienced by CRNAs?

In addition to the demographic, Nursing Incivility Scale, and Copenhagen Burnout Inventory questions, the survey concluded with three open-ended or qualitative questions. These questions allowed the survey participants to offer commentary at will within three categories. The first category asked survey participants to offer suggestions that would help *prevent* DRCB (disrespectful, rude

communication and/or behaviors) in the healthcare workplace. The second category asked participants to offer *coping* suggestions for victims of DRCB in the healthcare workplace. And finally, the third category asked survey participants to offer suggestions for managers *to detect and manage* the problems of DRCB that are occurring in their facilities or departments.

After examining the results of the open-ended, qualitative responses within Table 16, the CRNA work experience is similar among all respondents of the open-ended questions. Most notable is the development and utilization of a zero tolerance policy for practice, regardless of title, within employment situations, as well as following a similar policy extended to our students within our anesthesia programs. (For more detail, see Table 16).

In total, 142 survey respondents (37.6%) provided qualitative information in response to at least one of the open-ended questions. Of the 142 responses, 108 provided commentary in response to all 3 open-ended questions. The respondents provided a total of 724 comments in all three categories, 250 under *prevention*, 229 under *coping*, and 245 under *detection and management.*

Within the category of *prevention,* respondents reported most frequently (16.4%) that hospitals should provide educational programs for all staff on topics of team building workshops, which focus on quality communication and behaviors to promote a civil workplace. Respondents (12.8%) also reported that institutions should develop and follow a zero tolerance policy for all employees to follow, regardless of the employee's title. Respondents also mentioned the importance of, not only the development of a zero tolerance policy, but also utilization of the zero

tolerance policy. Finally, respondents (11.6%) suggested, to aid in the prevention of workplace incivility, that the victim, or victims, of DRCB should act as good examples for others to follow.

Within the category of *coping mechanisms* for the victims of DRCB, respondents (20%) most frequently suggested having the victim change his or her behavior in reaction to the DRCB. These suggested changes, in behaviors for the victim, included remaining calm and walking away from the source individual, or individuals of DRCB. It was also suggested that the victims of the DRCB work harder and smarter, as a way to prevent repeated DRCB in the future from the source individual or individuals. The second most frequent suggestion (10%) in coping with DRCB was to arrange a face-to-face conversation with the disrespectful, rude individual, following the DRCB. Less frequently mentioned (8.2%), was for the individual coping with DRCB to seek counsel with a trusted friend or colleague. Another suggestion (8.2%) offered by respondents, to aid in coping for victims, focused again at the development of a zero tolerance policy instituted by the facility.

Within the category of offering suggestions to management or administration that would aid in *detection and in the management* of DCRB within their facility or departments, respondents most frequently suggested (17.9%) that members of management themselves increase their presence and visibility within the clinical areas. The next, most frequently suggested action taken by management was the institution of a broad, zero tolerance policy to be followed by all individuals within the workplace, regardless of title (9.7%). The third most frequently suggested action for management was that management should actively listen to staff concerns

of bullying in private or during staff meeting forums (9.3%). Table 16 summaries the comments made in all three categories.

Table 16. Summary of Qualitative Comments

Suggestions on Prevention:	Total # Comments	Percentage Prevention
Recommendations related to the individual who is receiving disrespectful/rude communications:		
Be a good example for others to follow	29	11.6%
Recommendations to the organization where the disrespectful/rude communications are taking place:		
Broad policies:		
Zero tolerance for all employees	32	12.8%
Zero tolerance for Physician bullies (regardless of title)	24	9.6%
Consistently and equally enforce policies by Human Resources (HR) (regardless of title)	8	3.2%
Zero tolerance for manager incivility (imposed by administration/HR)	3	1.2%
Management transparency (to increase trust of staff)	2	0.8%
Education for all staff:		
Team building workshops, (in quality communication, and behavior)	41	16.4%
Stress management workshops for all staff	7	2.5%
Education for management:		
Management needs to become more understanding of clinical area/work stress of staff	7	2.5%
Hospitals need to choose ethics over economics	3	1.2%
Dealing with the person using rude/disrespectful behaviors:		
HR and management hold people accountable for their behavior at work	27	10.8%
Counseling and Educational workshops for bullies	7	2.5%
Dealing with the person receiving rude/disrespectful behaviors:		
Victim should directly communicate with the bully at time of incident	15	6%
File official report with management or HR.	11	4.4%
Recommendations to all employees in the organization:		
Treat all employees professionally regardless of title	11	4.4%
Acknowledge all people as valuable	10	4%
Take pride in your profession and service to society	9	3.6%
Recommendations to CRNA schools:		
Zero tolerance for educational programs (CRNA)	4	1.6%

Suggestions For Coping:	Total # Comments	Percentage Coping
Recommendations related to the individual who is receiving disrespectful/rude communications:		
Victim needs to change behavior (remain calm, walk away, work harder and smarter)	46	20%
Victim need to arrange conversation with bully at later time	23	10%
Seek counsel with trusted friend	19	8.2%
Victim needs to become more aggressive with offender	16	6.9%
Exercise, mediation, self help	14	6.1%
Report incivility to higher in chain of command (Management, HR)	14	6.1%
Limit exposure from offensive individuals	4	1.7%
Recommendations to the organization where the disrespectful/rude communications are taking place:		
Broad policies:		
Zero tolerance policy for staff enforced by administration	19	8.2%
Open door policy to Management for staff	5	2.1%
Education:		
Increased staff and management awareness through education	14	6.1%
Teach conflict resolution to all OR staff and management	13	5.6%
Dealing with the person using rude/disrespectful behaviors:		
Zero tolerance policy for uncivil managers enforced by HR	5	2.1%
Counseling the bully on appropriate communication and behavior in the workplace	6	2.6%
Anger management workshops for bullies	1	0.43%
Use substances like alcohol	1	0.43%
Dealing with the person receiving rude/disrespectful behaviors:		
Counseling the victim	9	3.9%

Recommendations to all employees in the organization:		
Become a good example for others to follow	10	4.3%
Take pride in service we provide our patients	4	1.7%
Recommendations to CRNA schools:		
Zero tolerance policy for uncivil acts in CRNA programs	6	2.6%

Suggestions for Management or Administration Detection:	Total # Comments	Percentage Management Detection.
Recommendations to the organization where the disrespectful/rude communications are taking place:		
Broad policies:		
Zero tolerance policy needs to be followed regardless of title	24	9.7%
HR policies:		
Zero tolerance exercised from HR towards uncivil managers	7	2.8%
Management should not be fearful to report powerful bullies (They should not fear loosing their management jobs)	7	2.8%
Education for all staff:		
Educational in-services to prevent bullying and improve communication	11	4.4%
Management Action:		
Should increase presence and visibility in the clinical area	44	17.9%
Actively listen to staff concerns of bullying	23	9.3%
Interact with staff on regular basis	20	8.1%
Keep an open door policy	19	7.7%
Set up anonymous report system for victims or witnesses	12	4.8%
Needs to be a positive example for staff	10	4%
Get facts straight before acting on gossip and heresy	8	3.2%
Management needs to increase knowledge of clinical stress environment	8	3.2%
Promote increase quality communication between all staff regardless of title	9	3.6%
Needs to be more supportive of staff when incivility occurs	4	1.6%
Transparency in management with policy and agenda (to promote trust)	3	1.2%
Educational In-services for Management:		
Educational in-services for management to improve staff relations	10	4%
Management needs formal training on how to handle incivility and bullies	9	3.6%
Dealing with the person using rude/disrespectful behaviors:		
Follow up with complaints of bullying with the offender	16	6.5%
Recommendations to all employees in the organization:		
Promote patient safety	1	0.4%

Clearly, there is some overlap in responses from one category to another. For example, the responses to all of the open-ended questions offered the suggestion of the development of a zero tolerance policy and its utilization. This suggestion not only appears in all three categories, but also ranks in the top 3 most frequent comments within all categories. It was also noted that across the categories of *prevention* and *detection and management,* that the zero tolerance policy needs to apply to all employees, independent of job title. Additionally, respondents suggested that a zero tolerance policy be established and followed

within our anesthesia educational programs and apply to students, as well as educational mentors. Overlap of responses across all 3 categories also exist for the suggestion of educational events intended for staff and management that focus on team building, stress management, conflict resolution and quality communication. Of note, many comments offered suggestions for educational events that specifically aid members of management and administration. These educational suggestions for management and administration were again noted within both of the other subcategories. These suggestions focused on educational events specifically for managers, to aid them in addressing and managing individuals exhibiting incivility or bullying behaviors, and also within the areas of enhancing general staff relations. Other overlap of commentary included the theme of suggestions for management that were also reported within the *prevention* and *coping* categories. These additional suggestions for management were to provide a sense of transparency surrounding policies and also to maintain an open door policy for employees to promote a sense of trust among all employees.

Additional overlap of commentary offered suggestions for victims. These suggestions included arrangement for an open conversation between the victim and individual exhibiting DRCB. These suggestions for victims were noted within the *prevention* and *coping* categories. Additional overlap of suggestions that appeared in all 3 categories of open-ended responses related to counseling services for both victims and individuals exhibiting DRCB. Counseling for the victim to help over come the negative sequelae following the uncivil act or communication and counseling for the uncivil individual to prevent future negative interactions. Lastly,

overlap of commentary appeared under the suggestion that all employees renew a sense of pride in their profession and exhibit communication or behaviors that would be considered to be positive or professional, while interacting with all individuals at work.

Chapter VI

Discussion:

This paper provided new information on the prevalence of incivility and burnout that CRNAs may experience while at work. It was revealed that CRNAs might experience workplace incivility from several sources; the most common sources are general employee, non-employee individuals and physician practitioners. CRNAs experience moderate levels of incivility from their CRNA colleagues and low levels of incivility from their CRNA supervisors. Detailed analysis of the data collected in this study was controlled for certain variables. We controlled for gender, type of employment arrangement (hospital employee, group practice, independent contractor), type of employment class (clinical CRNA, manager CRNA and educational CRNA), hours worked per week and duration of years in the CRNA profession. It was found that factors that are associated with higher levels of incivility are gender. Female CRNAs tend to report a higher prevalence of workplace incivility compared to their male counterpart. According to the analysis provided in this study as levels of workplace incivility escalate or intensify, the development of professional burnout becomes more likely. Although female respondents reported higher levels of incivility, the only statistically significant factor contributing to the development of professional burnout was experiencing workplace incivility, independent of gender, type of employment, type of employment class, hours worked per week, and years of employment in the CRNA profession. Although the results of this study show that female respondents report higher levels of incivility, compared to their male counterparts, (albeit not to the

level that would lead to professional burnout); this clearly this leaves the door open for future research studies to investigate the affects of gender, incivility and professional burnout. It would be of interest to further investigate the effects of gender on professional burnout, controlled for workplace incivility factors.

We chose to control for certain demographics when measuring for workplace incivility and professional burnout. Not only was it a goal to identify the potential sources of workplace incivility, but also the prevalence of workplace incivility and professional burnout. It was also a goal to illuminate possible conditions of work or personal worker characteristics that may lend it to a greater occurrence of workplace incivility and/or the development of professional burnout among a CRNA population. Gender appears to play a role, but obviously there must be more to the working conditions of CRNAs that lead to workplace incivility and professional burnout.

The results of this study are similar to previously published studies in literature, such as the study conducted by Sakellaropoulos et al[17]. In the Sakellaropoulos study it was found that the female gender is associated with experiencing higher levels of workplace stress and experiencing verbal, direct, and active aggression. Although workplace stress and aggression are not the same as workplace incivility, there are some overlaps in the definitions of each (both can have negative or harmful effects on an target individual). In the study conducted by Lim et al[11], a theoretical framework was developed and showed increased evidence that workplace incivility leads to lower job satisfaction. Here again lower job satisfaction is not professional burnout, but there exists similar themes in

definitions of each, such as, the psychosocial connection between the employee's work life and an employee's mental and physical well-being.

In addition to quantitative data, the present study also offers new information from qualitative sources. Reviewing the tables of the qualitative, open-ended responses (Table 16), many CRNAs responded in a similar fashion with similar comments across all 3 categories of suggestions for prevention, coping and member of management detection of workplace incivility. Additionally, the information in Table 16 shows some similarities for suggestions for employees that have been published in previous studies. For example, Brilles offered the suggestion of counseling the individual exhibiting the DRCB (disrespectful, rude communication and/or behaviors).[23] Similarly, Bartholomew suggests the development of an open door policy instituted by management and the promotion of positive and professional communications and/or behaviors among staff.[24] While these are examples of similarities in the literature within the profession of nursing, this present study offers new information specific to the CRNA profession. As mentioned earlier in the literature review, no previous study offered information specific to the CRNA working experience with regards to workplace incivility; specifically comparing the sources of the incivility (employee, non-employee, colleague, supervisor and physician). This study summarizes specific quantitative information within these sources and offers additional qualitative information and suggestions from the CRNA respondents to aid in prevention, coping strategies, and advice for managers to detect and correct incivility within a department or institution in which CRNAs function.

CRNAs serve the American public by providing high quality and cost effective anesthesia care. However CRNAs work in a potentially stressful and at times uncivil work environment that can lead to the development of professional burnout. Professional burnout can rob the CRNA of the enjoyment and personal fulfillment that accompanies the work within the CRNA profession. Therefore, it is key to curb incivility within our healthcare facilities. Interventions need to be instituted, such as the expectation of a zero tolerance work environment curbing incivility, setting up workshops on quality communication skills and behaviors for employees, institution of a open door policy for members of management, encouraging the need for management to becoming more visible in the clinical areas, and management needs to offer both one-on-one and/or group in-services on how to handle the issues of workplace incivility once identified within a group of employees.

Incivility within the workplace is very much like incivility in a schoolyard. Schoolyard bullies learn at an early age how to control others through the use of harsh words, intimidation or rude actions to benefit self in some way. This over time can change the victim's behavior in an attempt to avoid these negative consequences in future interactions. Unfortunately, the reality is schoolyard bullies grow up, land jobs and are working alongside others in the workforce. The faces may be different but the interactions, demeanor and resulting fallout, is much the same as the bullying or uncivil behaviors experienced on the schoolyard.

Workplace incivility has been defined as a low-intensity deviant behavior with ambiguous intent to harm the target. Such behaviors may include rude and discourteous communication or actions, displaying a lack of regard for others within

the workplace environment. Examples of workplace incivility may include publically insulting comments, spreading of false rumors, social isolation or professional degradation.

Workplace incivility has been considered a condition of employment in many business sectors. Sadly, healthcare is no exception to this rule. Decades ago healthcare was viewed as a "community service," and individuals entering the healthcare fields of employment had a tendency to be very compassionate, giving all that was required and more to provide this service to the population for which they served. Modern day healthcare is evolving from a sense of duty to a business model. Healthcare workers are not only doing what is best for the patient, but also what makes the most financial sense in our present healthcare economic environment.[35] This, in and of itself, can cause dilemmas and stress for the provider. The changing landscape of healthcare; such as production pressures, economic factors, cost containment, heightened policy directives, certain creative differences among healthcare practitioners and certain emotional reactions, such as jealously and envy, provide only some examples that can set the groundwork that may lead to increasing tensions and uncivil interactions between members of our healthcare workforce in our healthcare facilities. Incivility within healthcare facilities erodes team concept, quality communication and quality of care delivery[36] not to mention, increase the overall cost of healthcare provided[15].

The information presented in this study clearly shows that CRNAs work within a potentially uncivil and stressful environment. As a culture of incivility among team members exist, the potential for high stress interactions also exist.

Over time the problem of incivility and workplace stress can lead to professional burnout. Figure 10 indicates as workplace incivility increases the potential for professional burnout also increases. Professional burnout can have negative effects not only on the victim experiencing professional burnout, but also on the quality of care the professional healthcare provider delivers[12].

Primary Author's Opinion:

It is the opinion of the author of this study, to suggest that management and administration establish a broad policy of zero tolerance for uncivil behaviors and uncivil communications. But more importantly, this policy needs to be enforced regardless of the individual's title. Additionally, establish an open door policy for employees to report such social infractions. Encourage members of management to share in the clinical, direct patient care experience. This will allow members of management to gain insight and empathy regarding common challenges and stresses that clinical CRNAs deal with on a daily basis, which may lead to DRCB. This managerial direct clinical emersion will not only offer empathy, but also offer an opportunity for the manager to see interactions between employees first hand. This management visibility and presence may also serve to curb examples of incivility as well. Counseling for the victim and corrective counseling for the uncivil individual would also be suggested. It would also be encouraged that institutions develop a Code of Conduct that outlines behaviors that would support a healthy psychosocial work environment. This is in alignment with other previous studies which encourage aspects of the code of conduct to include, but not limited to: showing respect for others, respecting privacy and confidentiality of others,

addressing others by their given name, sharing workload equally, teaching and helping others, active listening and understanding others point of view, refrain from gossiping, privately and confidentially provide constructive feed back if a situation is appropriate, focus on developing healthy and friendly work relationships in support to team concept, focus on work mechanisms that focus on quality outcomes.[15]

Lastly, the author of this study encourages a sense of professionalism and pride among all members of staff and suggests manager CRNAs, educator CRNAs as well as clinical CRNAs serve as good examples for others within employment to emulate.

Conclusions:

This research endeavor was an investigation of group dynamics that CRNAs face in today's healthcare facilities. The reality is that CRNAs work in a stressful, and at times, uncivil work environment. Workplace incivility exists only if it is permitted to exist. Leadership that ignores the problems associated with workplace incivility, as well as ignoring the victims, propagates the problem through the act of omission. Institutions that ignore these problems as they develop will only face larger problems in the future. Unfortunately if left unaddressed, the cost of workplace incivility falls not only on the facility (in terms of lost revenue), but also on the victim, as the potential for professional burnout will most likely develop. However, addressing workplace incivility does not fall solely on leadership. Fostering a healthy workplace environment is the responsibility of everyone within the workplace. Everyone is encouraged to follow the golden rule, treat and communicate with everyone in the same manner for which one would expect and

appreciate from others. In addition, a fair dose of empathy and understanding for what others may be experiencing in work and personal life goes a long way to avoid the slippery slope of incivility.

There are many parallels between the aviation and anesthesia industry. The tone and quality of communication in the cockpit can make or break a successful flight. Communication in the cockpit of an airliner is as important as the communication between healthcare providers in the operating room. Take for example the 1972 airline disaster of Eastern Airline flight 401. During a nighttime landing approach to a Miami airport, an indicator light signaling the successful engagement of the landing gear was found to be non-illumining. This brought on concern to the pilot. The pilot ordered the co-pilot and crew to make many adjustments to the aircraft in an attempt to illuminate the indicator light. In the process of these maneuvers the pilot also ordered the autopilot mechanism to be engaged to allow for the continued elevated attention to the seemly failed engagement of the aircrafts landing gear. For reasons that are unclear, the autopilot system was not fully engaged. For the next several minutes the crew continued to attempt to illuminate the indicator light. During this time the plane continued to make a slow decent in altitude in the dark of the night skies of south Florida. With each maneuver of the aircraft and the continued unsuccessful illumination of the landing gear light, the pilot continued to exhibit an escalation of concern and negative demeanor in his communication with the cockpit crew. Sensing this tension, the crew increased their focused attention on this landing gear situation. Miami air traffic control did ask the flight crew to comment on their condition, but

that communication was too vague. The pilot and crew believed the warning from traffic control was in regards to the landing gear, but the reality was that traffic control was concerned with the altitude of the aircraft. Meanwhile, the pilot continued to direct the crew's attention to the non-illuminating landing gear light. Even with audio alarms warning the crew of the unsafe altitude, the crew continued to follow the pilot's directions. The aircraft crashed in the everglades of south Florida; many passengers and crewmembers (including the pilot) perished in the crash. It was discovered that the landing gear light bulb in the control panel was burned out and the landing gear was in fact appropriately engaged for landing. The pilot set the stage for the tone of communication and in essence directed the attention of the crew away from the real danger the flight was facing. The crew did not question the pilot's directions. This may not be the best example of incivility, but does show the role of quality communication, infliction of demeanor, and tone of interaction and its crucial role in public safety. When quality communication is compromised for whatever reason, safety can also be compromised because attention to detail can be misguided.

Limitations of study:

One limitation of this study was that a relatively low responses rate of 12% was expected at the onset. This was based on previous surveys sent out by MANA.[32] This survey study did receive a response rate of 22.6% returned electronic surveys, which was better than the expected 12%, however lower than other previously published CRNA studies. (The study authored by Chipas and McKenna[18] on Stress and Burnout in Nurse anesthesia reported a 26.9% responses rate). Another

limitation of this study was that individuals who were more affected by workplace incivility and professional burnout may be more likely to respond to a survey of this type compared to those who are not affected by this negative phenomena while at work. Therefore the rates of incivility and professional burnout may be overestimated by this study. Additionally the recent economic conditions in the state of Michigan may skew the results of this study, as Michigan has experienced an economic downturn in recent years. Lastly the University of Michigan Medical Center in Ann Arbor, MI employs the primary author of this study. This facility has over 100 CRNAs on staff. This fact may have encouraged a greater response rate from this facility, skewing the results toward working conditions at the primary author's home facility.

Recommendations for Future Research:

This is the first study to examine workplace incivility experienced by CRNAs and the development of professional burnout. This study considered 4 sources of workplace incivility, those being general employee, non-employee individuals, CRNA practitioner, CRNA supervisor, and physician sources. Future research to expand and further subdivide source incivility may be of additional value, especially in the employee, non-employee individual sources. Additionally we found that gender may play a role in CRNA workplace incivility and development of professional burnout. Future research would be of interest to further investigate the effects of gender on professional burnout. Measured demographic information of the CRNA respondents did not reveal statistically significant answers as to why CRNAs may experience workplace incivility and/or develop professional burnout.

Future studies need to investigate additional aspects of the working conditions CRNAs function within, such as the hierarchy that exists between employee classes and among professionals. Lastly we discovered that manager CRNAs offer low levels of workplace incivility, but experience high levels of professional burnout. Future research would be of value in identifying factors leading to manager CRNAs reporting greater symptoms of professional burnout as compared to clinical or educational CRNAs.

Chapter VII

Authors:

Ray Elmblad, CRNA, MS is a staff CRNA at the University of Michigan, Medical Center in Ann Arbor, MI. At the time this paper was written he was also a student at the University of Michigan-Flint, Hurley Medical Center, Doctor of Anesthesia Practice program in Flint, MI. Email: remblad@umflint.edu.

Gergana D. Kodjebacheva, PhD is an Assistant Professor of Health Sciences and Administration, Public Health and Health Sciences department at University of Michigan-Flint.

Lynn L. Lebeck, CRNA, PhD is a Clinical Assistant Professor of Health Sciences and Administration, Public Health and Health Sciences, Masters of Science in Anesthesia and Doctor of Anesthesia Practice/Masters of Business at the University of Michigan-Flint.

Appendices:

Appendix 1
Demographic Questions:

1. Would you like to partake in this workplace environment survey? *Yes, No.*
2. Are you male or female? *Male, Female.*
3. Are you actively working as a CRNA? *Yes, No.*
4. On average how many hours do you work per week? *Less than 20, 20-40, over 40.*
5. How many years have you been employed as a CRNA? *Less than 5 years, 5-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36 or more years.*
6. Are you employed by a hospital, group practice or work as an independent contractor? *Hospital employee, Group practice, Independent contractor, Other (please specify).*
7. Is your work predominantly clinical, managerial or educational in nature? *Clinical, managerial, educational, other (please specify).*

Appendix 2

Nursing Incivility Scale Questions: Questions from Guidroz, page 191-192. *General, Nursing, Supervisor, and Physician subscales.*

Possible responses:
1=Strongly Disagree,
2=Disagree
3=Neither Agree nor Disagree
4=Agree
5= strongly Agree

We would like to know about the type of interactions you have with the people you work with. For the following items, please consider **all individuals** you interact with at work, including patients, visitor, doctors, other nurses or hospital personnel.

1. Hospital employees raise their voices when they get frustrated.
2. People blame others for their mistakes or offenses.
3. Basic disagreements turn into personal verbal attacks on other employees.
4. People make jokes about minority groups.
5. People make jokes about religious groups.
6. Some employees take things without asking.
7. Employees don't stick to an appropriate noise level (e.g. talking too loudly).
8. Employees display offensive body language (e.g. crossed arms, body posture).

The following items ask about your interactions with other **CRNAs**. How often do other **CRNA** in your department....

9. ...argue with each other frequently.
10. ...have violent outburst or heated arguments in the workplace.
11. ...scream at other employees.
12. ...gossip about one another.
13. ...gossip about their supervisor at work.
14. ...bad-mouth others in the workplace.
15. ...spread bad rumors around here.
16. ...make little contribution to a project, but expect to receive credit for working on it.
17. ...claim credit for my work.
18. ...take credit of work they did not do.

Please think about your interactions with your **direct supervisor** (i.e., the person you report to most frequently) and indicate how strongly you agree with the following behavior. My direct supervisor...

19. ...is verbally abusive.
20. ...yells at me about matters that are not important.
21. ...shouts or yells at me for making mistakes.

22. ...takes his/her feeling out on me (e.g., stress, anger, "blowing off steam").
23. ...does not respond to my concerns in a timely manner.
24. ...factors gossip and personal information into personnel decisions.
25. ...is condescending to me.

This section refers to **physicians** you work with. Please indicate your level of agreement with the following items.

26. Some physicians are verbally abusive.
27. Physicians yell at nurses about matters that are not important.
28. Physicians shout or yell at me for making mistakes.
29. Physicians take their feelings out on me (e.g., stress, anger, "blowing off steam").
30. Physicians do not respond to my concerns in a timely manner.
31. I am treated as though my time is not important.
32. Physicians are condescending to me.

Appendix 3

Copenhagen Burnout Inventory Questions: Questions from Borritz, page 56. *Work-related burnout subscale.*

Responses categories:
First three questions:
To a very high degree
To a high degree
Somewhat
To a low degree
To a very low degree

Last four questions:
Always
Often
Sometimes
Seldom
Never/almost never. Reversed score for last question

Definition: Work-related burnout is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person's work.

1. Is your work emotionally exhausting?
2. Do you feel burnt out because of your work?
3. Does work frustrate you?
4. Do you feel worn out at the end of the working day?
5. Are you exhausted in the morning at the thought of another day at work?
6. Do you feel every working hour is tiring for you?
7. Do you have enough energy for family and friends during leisure time?

Appendix 4
Qualitative questions:

1. What recommendations do you have for ***preventing*** disrespectful/rude communication and/or behaviors in the healthcare workplace?
2. What recommendations do you have for ***coping*** with disrespectful/rude communication and/or behaviors in the healthcare workplace?
3. What recommendations do you have for ***managers to detect*** that disrespectful/rude communication and/or behaviors are occurring within a department?

Appendix 5
Email introduction letter to accompany Qualtric survey questionnaire:

Dear Certified Registered Nurse Anesthetist,

Allow me to introduce myself; my name is Ray Elmblad. I am a practicing CRNA and a Doctoral student at the University of Michigan-Flint. My faculty advisory team includes: Dr. Gergana Kodjebacheva and Dr. Lynn Lebeck. You are receiving this survey as a member of MANA. This brief survey is part of a capstone project, investigating negative interactions and communication between healthcare providers.

The goal of this study is to increase understanding of the causes and effects of rude behaviors and communications, in the healthcare workplace, that CRNAs may be exposed to. We are hopeful the information gathered from this study will help with interventions to prevent disrespectful behaviors in the healthcare workplace.

Your involvement in this project is completely voluntary. You may withdraw from this survey at any point. Some of the questions are multiple-choice, while others are open-ended. If you choose to complete this survey, please feel free to offer any information you feel may improve the healthcare work environment in which CRNAs practice. Your identity will remain anonymous.

If at any point before, during, or following the engagement of this survey, you feel that you would benefit from counseling assistance, you may visit the following AANA wellness committee link for assistance:
http://www.aana.com/resources2/health-wellness/Pages/Getting-Help.aspx

Click on the following link if you would like to partake in this survey.

http://umflint.qualtrics.com/SE/?SID=SV_b9qu4FfKQj9figB

Thank you for your participation in this study,
Ray Elmblad, MS, CRNA.
Doctoral Student.
University of Michigan-Flint
remblad@umflint.edu

Appendix 6
IRB Notice of Exemption

Flint Institutional Review Board • 530 French Hall, 303 E. Kearsley St, Flint, MI 48502 • phone (810) 762-3383 • fax (313) 593-0526 • research@umflint.edu

To: Ray Elmblad

From:

Marianne McGrath
Cc:

Gergana Kodjebacheva
Ray Elmblad

Subject: Notice of Exemption for [HUM00064916]

SUBMISSION INFORMATION: Title: Workplace Incivility among Certified Registered Nurse Anesthetists Full Study Title (if applicable): Workplace Incivility among Certified Registered Nurse Anesthetists in Michigan: Prevalence, Influence on Burnout, and Intervention Strategies Study eResearch ID: HUM00064916 Date of this Notification from IRB: 9/13/2012 Date of IRB Exempt Determination: 9/10/2012 UM Federalwide Assurance: FWA00004969 expiring on 6/13/2014 OHRP IRB Registration Number(s): IRB00000248

IRB EXEMPTION STATUS: The IRB Flint has reviewed the study referenced above and determined that, as currently described, it is exempt from ongoing IRB review, per the following federal exemption category:

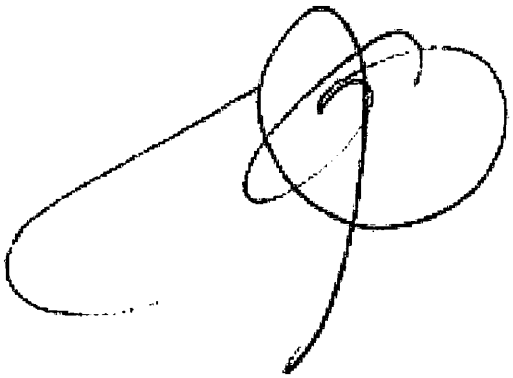
EXEMPTION #2 of the 45 CFR 46.101.(b): Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Note that the study is considered exempt as long as any changes to the use of human subjects (including their data) remain within the scope of the exemption category above. Any proposed changes that may exceed the scope of this category, or the approval conditions of any other non-IRB reviewing committees, must be submitted as an amendment through eResearch.

Although an exemption determination eliminates the need for ongoing IRB review and approval, you still have an obligation to understand and abide by generally accepted principles of responsible and ethical conduct of research. Examples of these principles can be found in the Belmont Report as well as in guidance from professional societies and scientific organizations.

SUBMITTING AMENDMENTS VIA eRESEARCH: You can access the online forms for amendments in the eResearch workspace for this exempt study, referenced above.

ACCESSING EXEMPT STUDIES IN eRESEARCH: Click the "Exempt and Not Regulated" tab in your eResearch home workspace to access this exempt study.



Marianne McGrath
Chair, IRB Flint

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