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Ashley Rose Folgo
arfolgo@gmail.com

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STAFF PERCEPTIONS OF RISK FACTORS FOR VIOLENCE
AND AGGRESSION IN AMBULATORY CARE

Submitted to the Faculty
Yale University School of Nursing

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Nursing Practice

Ashley Rose Folgo APRN, PMHNP-BC

May 21, 2018

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This DNP Project is accepted in partial fulfillment of the requirements for the degree
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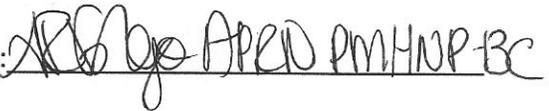


Joanne DeSanto Iennaco PhD

Date here March 27, 2018

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March 24, 2018

Staff Perceptions of Risk Factors for Violence
and Aggression in Ambulatory Care
Ashley R. Folgo APRN, PMHNP-BC
Yale School of Nursing

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Abstract

Management of violent acts by patients and visitors in the ambulatory care environment is an important issue that research has not addressed. This report utilizes research conducted in inpatient healthcare settings regarding violence, patient and visitor risk factors for violence, staff characteristics that increase the likelihood of victimization, and the impact violent acts have on staff morale as well as impacts on patients' perceived quality of care. Identification of interventions to de-escalate aggressive patients and visitors from research conducted within the inpatient environment is synthesized for evaluation of its application to ambulatory care. Feedback regarding these risk factors from clinic staff in the ambulatory care environment and content experts is analyzed to further develop interventions to promote staff safety specific to the ambulatory care environment.

Keywords: aggression, violence, ambulatory care

Chapter 1

Introduction

In recent years, violence towards nurses and nursing staff has been garnering more attention. According to numerous studies and editorials, assault on nursing staff in the inpatient psychiatric setting is not a new phenomenon, and it is often overlooked as just part of the job (Lanza, 2011). In 2011, the Bureau of Justice Studies released a special report examining the incidence of workplace violence in employed persons age 16 and older from 1993 – 2009 (Harrell, 2011). Across all occupations, nonfatal occurrences of rape, robbery, and assault (sexual, aggravated, or simple) occurred 5.1 times per 1,000 employees (Harrell, 2011). When examining these figures by occupation, the medical field accounted for 10.2% of all incidences of nonfatal workplace violence (Harrell, 2011). Given that healthcare workers only represented 8.2% of workers, this rate is much higher than expected. To put these figures into perspective, it is important to note that acts of violence are notoriously underreported in health care, especially by nurses and nursing staff likely due to the tendency to “blame the victim” with more experienced nurses receiving more blame if they are injured on the job. (Hardin, 2012; Lanza, 2011; Riemer, 2009). In comparison, the law enforcement field accounted for the highest reported incidences of nonfatal workplace violence comprising 19% of all incidents reported (Harrell, 2011).

Thus far, studies examining violence in healthcare have focused upon safety within emergency departments and psychiatric units. According to the National Institute for Occupational Safety and Health [NIOSH] (2002), risk factors for violence within these environments include: working directly with volatile people (e.g., those with

aggressive or violent tendencies, those who are cognitively impaired, and those who are drug-seeking), understaffing, long waits for service, staff working alone with a patient, overcrowded waiting rooms, poor environmental design (including poor lighting, temperature control, and uncomfortable seating), inadequate security, and lack of staff training for managing crises with volatile patients. All of the aforementioned risks of violence are not only possible, but also commonplace in the ambulatory care setting.

Ambulatory settings are focused on creating a welcoming and open environment for all who enter and do not typically have security measures in place (Hesterman, 2015). In 2015, there were approximately 1 billion office visits to physicians in ambulatory care settings with approximately 50% of these visits within primary care and general practice settings, most for routine check-ups and preventative care (CDC, 2016). Security professionals often refer to the ambulatory care environment as a “soft target” because, on examination, it is difficult to find any preventative measures taken against violent acts (Hesterman, 2015).

Over one-third of all mental health care provided in the United States is provided by primary care providers [PCPs], with 24% of patients seen having a diagnosed mental disorder (WHO, 1998), comprising approximately 70% of their practice (Russell, 2010). Robinson and Reiter (2007) suggest that psychological factors contribute strongly to the presentation and treatment outcomes of numerous chronic conditions (e.g.: asthma, hypertension, diabetes) and are responsible for 70% of office visits to a PCP for the management of chronic conditions.

As the population grows and practicing physicians retire, the United States is potentially facing a shortage of more than 100,000 doctors within the next 10 years and

with primary care the largest sector, it is impacted by a reduced number of doctors, nurses, and physician assistants entering this area of practice (AHRQ, 2010). This will serve to increase demand in primary care settings, resulting in even longer wait times for services and appointments (Mann, 2017).

Chapter 2

Literature Review

Violence in the Inpatient Psychiatric Setting

In 2012, Hardin wrote an article addressing strategies nurse managers can utilize in order to help promote inpatient psychiatric unit safety. Hardin (2012) attributed the well-known underreporting of violence against nurses to the lack of a consistent definition of what, exactly, constitutes violence in a psychiatric setting. She explained that, since violence is often looked at as “just part of the job,” there is room for interpretation when determining what constitutes a violent action. While most nurses agree that getting punched by a patient is a violent action, if a confused elderly patient was to slap a nurse, due to a perceived lack of intent by the patient to harm, interpreting if this was a violent action is difficult. In agreement with studies by Riemer (2009) and Sullivan, Bezmen, Barron, and Rivera, et al. (2005), Hardin (2012) also stresses the importance of staff being able to recognize the early stages of aggression since violent behavior usually is not addressed until the behavior has already escalated.

Impact on Staff and Quality of Care

Whether or not a physical injury is sustained, violence towards Health Care Providers [HCPs] can impact targeted staff in numerous ways, including: fear, anger, sadness, disappointment, irritability, sleeplessness, diagnosable Post Traumatic Stress Disorder [PTSD], significant disruptions to physical health, lower mental energy, decreased work efficiency, decreased decision making, increased stress, feeling more on guard at work and less satisfaction in their work (Arnetz & Arnetz, 2001). Workers who experience violence are also more likely to quit their job, seek work elsewhere, or leave

the profession (Celik et al, 2007; Lanctot & Guay, 2014). Colleagues of the targeted staff member may also experience a decrease in productivity and an increase in utilization of sick leave (Nijman, Bowers, Oud & Jansen, 2005). When working with a patient prone to violence, it is common for staff to engage in “patient-avoiding behaviors” as a method of coping (Wallis, 1987). These behaviors result in staff being “on guard,” spending less time in direct contact with patients, and less responsive to the patients’ needs overall (Wallis, 1987). These behaviors have a negative impact on the quality of patient care and, subsequently, a negative impact on patients’ perceptions and ratings of the quality of care received (Arnetz & Arnetz, 2001).

As outpatient clinics have become busier and patients in these clinics have become more likely to be psychiatrically compromised, what has been done to foster the safety of HCPs and supplemental staff who practice in this environment? If the current dearth of literature on the topic is any indication, the answer is “not much.” The stigma of mental illness has followed these patients into the ambulatory care environment, and while inpatient psychiatric units are pinpointed as unpredictable environments prone to violence, the relationship is not that simple. These concerns highlight the need for further study in the ambulatory care environment.

Overall Goal

The goal of this project is to propose strategies related to patient and visitor violence [PVV] and the safety of healthcare workers in the ambulatory care environment. The ambulatory care environment is being defined as freestanding outpatient clinics. In this environment a “visitor” is considered to be anyone accompanying a patient to an appointment (e.g. spouse, caregiver, friend, etc.). PVV is being defined as verbal,

nonverbal, or physical acts from patients and/or visitors that threaten staff or may lead to injury of “the psychological, social, or physical well-being” of staff (American Psychological Association, 1991, p 1).

Aims

1. Review the evidence on PVV in psychiatric inpatient units and other health care settings including the following: risk factors for PVV, safety and de-escalation interventions, effects of PVV on staff members, and barriers and facilitators for staff safety to identify aspects that may be translated into the ambulatory care environment.
2. Seek input from clinic staff and leaders regarding identified risk factors, strategies, interventions, and barriers and facilitators to implementation in ambulatory care.
3. Synthesize clinic input with expert feedback to identify priorities and propose safety measures to implement in ambulatory care.
4. Implement a pilot of change in safety measure over a period of 3 months and examine results on related indicators.

Chapter 3

Methods

Aim 1

A literature search was performed utilizing Scopus, ProQuest Social Sciences, PsychInfo, Ovid Medline, and PubMed databases looking at resources from all dates to the present. The search terms used in each database were specific to violence (aggression, assault, abuse), psychiatry (psychiatric unit, inpatient psychiatry), ambulatory care (primary care, outpatient office), and safety and de-escalation (intervention, nurse safety, staff safety). Papers were excluded if they focused on intimate partner violence or violence amongst coworkers. To be reviewed, papers had to examine risk factors for PVV, the impact PVV has on staff morale or quality of patient care, or intervention/de-escalation techniques for managing PVV. Searches were run on a monthly basis from September 2015 – October 2016. Titles, abstracts, and full text articles were reviewed to determine if an article met inclusion criteria. When full text articles met inclusion criteria, data related to risk factors for PVV, barriers and facilitators to PVV, impact of PVV on staff and quality of care, and interventions promoting staff safety were extracted into an evidence matrix. From the master evidence matrix, data regarding static and dynamic risk factors for PVV as well as staff and environmental risk factors for PVV were extracted into a risk factor matrix. The search identified a total of 71 sources, of which 28 met full inclusion criteria for this review and 10 of which discussed risk factors for PVV (table 1). Results from the literature review were summarized narratively.

Aim 2

Risk factors for violence and aggression identified in the literature were compiled to create a likert-scale with a score of “1” indicating the identified risk factor is not likely to lead to an act of violence and a score of “5” indicating an act of violence is very likely to occur (Figure 1). This scale was presented to the staff of an outpatient community health center. Staff were asked for their opinions on these matters and were aware their participation was anonymous and voluntary. Over a period of one week in August 2017, completed scales were collected. The mean score of each item was determined and items with a mean score of 4 or higher were considered an indicator of the staff’s perception that the item was highly likely to contribute to acts of violence within their ambulatory care setting. Respondents were identified by the type of care they provide: direct care (those who have direct, clinical interactions with patients and visitors, e.g. nurses and medical assistants), and indirect care (those who may or may not have face-to-face contact with patients and visitors but do not provide clinical encounters, e.g. front desk and call center staff). Mean scores and standard deviations were calculated for each item as well as by direct or indirect care categories and t-tests were evaluated to determine if there were differences by type of care group. The Satterthwaite method was used where variance was not homoscedastic. Chi-square analyses were performed to examine differences in risk factors based upon staff role as direct or indirect caregivers within the clinic. These data were then compared with responses extracted from Patient Satisfaction Surveys completed in the clinic from March 2016 – January 2018.

Patient Satisfaction Data

The clinic provides a Patient Satisfaction Survey to every fifth patient at the time of check-in and asks that it be returned at check-out. This survey asks patients to rate their experience on a 10-point scale with a score of 10 being the highest. If a patient gives a score of 9 or 10, they are asked to note what made their experience so positive. On the other hand, if a patient gives a score of 1 or 2, they are asked to note what areas can be improved upon to give them a better experience. In order to determine if patients were indicating areas for improvement that staff were noting as perceived factors related to aggression and violence in the clinic, survey results from March 2016 – December 2017 were examined and areas for improvement as identified by patients were extracted.

Aim 3

These data were presented to CAPT Marilyn Ridenour, BSN, MBA, MPH, CPH, CIC, Marilyn Lanza, DnSc, ARNP, FAAN, and Monique Mitchell, MS, PMHCNS, APRN three leading nurse researchers in the area of aggression and violence in healthcare, and Rosalyn Cama FASID, NCIDQ, EDAC, a pioneer in the evidence-based design of healthcare settings. From October 2017 – February 2018, their expert review was sought via email and scheduled conference calls. Topics of discussion included identified risk factors for violence and aggression in the clinic as identified on staff surveys and overlap with areas for improvement indicated on patient surveys, possible interventions to address identified areas for improvement as they intersect with risk factors for violence and aggression, and barriers and facilitators to implementation of safety measures.

Aim 4

Interventions identified via this expert review were then combined with the research evidence to make an implementation plan. An “implementation team” comprised of the clinic’s Practice Manager, Compliance Officer, Medical Director, Lead Medical Assistant, and Health Center Director, was formed to discuss implementation plans and processes. The implementation team met at least once monthly from November 2017 – March 2018 after the data were available from the prior month’s patient surveys to address areas for improvement in real time.

Implications

At this time, PVV towards healthcare workers has not been examined within the outpatient environment. This work will serve as a starting point for future, more in-depth, research in this area.

Dissemination

Results of the review of evidence will be prepared as a manuscript for publication in *Work* and will be submitted by March 31, 2018. A poster will be presented at the APNA New England meeting May 5, 2018. An abstract will be submitted to the Sixth International Conference on Violence in the Health Sector Annual for a presentation in October 24 – 26, 2018.

Chapter 4

Results

Risk Factors for PVV

The review yielded 4 categories of risk factors for violence and aggression: Static, Dynamic, Staff-Related, and Environmental. These risk factors were compiled and utilized as items on the staff survey (Figure 1).

Static risk factors for violence and aggression are those that cannot be changed and involve patient and visitor demographics as well as their social and psychiatric history. These risk factors included: extremes of age (older or younger) (Anderson & West, 2011; Hahn et al., 2013; Hamrin, Iennaco & Olson, 2009; NIAAA, 2010), male gender (Anderson & West; Hamrin et al., 2009), lower socioeconomic status (NIAAA, 2010), social deprivation (Bowers, Stewart, Papadopoulous & Iennaco, 2013), lower intelligence (Anderson & West, 2011), and parent engagement in criminal activities (NIAAA, 2010). Common static risk factors were a past history of: violence (Anderson & West, 2011), head trauma (Anderson & West, 2011), neurological impairment (Anderson & West, 2011), military service (Anderson & West, 2011), physical abuse (NIAAA, 2010), impulsivity (Anderson & West, 2011), victimization (Anderson & West, 2011; NIAAA, 2010), weapons training (Anderson & West, 2011), dementia (Hamrin et al., 2009), personality disorder (Hamrin et al., 2009; Ridenour et al., 2015), schizophrenia (Bowers et al.2013), Alzheimer's Disease (Speroni et al., 2014), and major mental illness (Anderson & West, 2011).

Dynamic risk factors are those that can be changed with intervention and involve patient and visitor demographics, and current symptoms of psychiatric disturbance and

substance abuse. These risk factors included: unemployment (NIAAA, 2010), treatment nonadherence (Anderson & West, 2011; Guenec, O'Shea & Dickens, 2015), access to weapons (Anderson & West, 2011), negative attitude (Guenec et al., 2015), persecutory delusions (Anderson & West, 2011), command hallucinations (Anderson & West, 2011), depression (Anderson & West, 2011), psychosis (Hamrin et al., 2009; NIAAA, 2010), hallucinations (Hamrin et al., 2009), hopelessness (Anderson & West, 2011), suicidality (Anderson & West, 2011), impulsivity (Anderson & West, 2011; Guenec et al., 2015), homicidality (Anderson & West, 2011), aggressive/violent tendencies (NIOSH, 2002), cognitive impairment (NIOSH, 2002), drug-seeking behavior (Speroni et al., 2014; NIOSH, 2002; Friedman, 2006), intoxication (Hamrin et al., 2009; NIAAA, 2010; Friedman, 2006), substance dependence (Anderson & West, 2011; Friedman, 2006), substance withdrawal (NIAAA, 2011; Friedman, 2006), and impairment by drugs or alcohol (Speroni et al., 2014; NIAAA, 2010; Friedman, 2006).

Risk factors related to staff characteristics included: younger age (Hahn et al., 2013; Ridenour et al., 2015), being a registered nurse (Hahn et al., 2013), completing aggression/crisis training (Hahn et al., 2013; Hamrin et al., 2009; Price, Baker, Bee & Lovell, 2015; Ridenour et al., 2015), frequent visitor contact (Hahn et al., 2013), high staff anxiety (Hamrin et al., 2009), temporary/unqualified staff (Hamrin et al., 2009; Bowers et al., 2013; Ridenour et al., 2015), belonging to ethnic minority groups (Bowers et al., 2013), working with volatile people (NIOSH, 2002), working alone with patients and visitors (NIOSH, 2002), and a lack of crisis training (NIOSH, 2002).

Risk factors related to the environment of care included: poor physical environment (Bowers et al., 2013), understaffing (NIOSH, 2002), long waits for service

(NIOSH, 2002), overcrowded waiting rooms (NIOSH, 2002), poor lighting (NIOSH, 2002), poor temperature control (NIOSH, 2002), uncomfortable seating (NIOSH, 2002), and inadequate security (NIOSH, 2002).

Staff Perceptions of Risk Factors for PVV

Surveys were distributed to staff in an ambulatory care clinic to determine their perceptions of PVV in their environment. 36 surveys were distributed, 18 were completed and returned. Regardless of level of patient contact, staff opinions were in agreement that risk factors related to substance abuse (dynamic) are highly likely to contribute to acts of aggression in the ambulatory care environment. Staff also agreed that a history of violence and abuse (static) were highly likely to contribute to aggression. Static risk factors of history of diagnosis of a personality disorder, schizophrenia or major mental illness as well as the dynamic risk factors of psychosis, mania, persecutory delusions and command hallucinations were noted as psychiatric factors highly likely to contribute to acts of aggression by all staff. Staff characteristics deemed highly likely to contribute to acts of aggression were working alone with patients and visitors, having a high amount of patient contact, and a lack of crisis training while understaffing, overcrowding, poor temperature control, long waits for service and inadequate security were identified as environmental risk factors that were highly likely to lead to aggression in the clinic.

Of the 51 risk factors examined, 20 had a total mean score of 4 or above (e.g.: aggressive/violent tendencies (4.72), substance withdrawal (4.5), homicidality (4.5), intoxication (4.4)), 25 had a mean score of 3.0 to 3.99 (e.g.: depression (3.0), suicidality (3.06), uncomfortable seating (3.11), and 6 had a mean score of 2.00 to 2.99 (e.g.: belonging to ethnic minority groups (2.28), hopelessness (2.72)). No risk factors had

overall mean scores at the extreme ends of the range (<2 or 5). Results are summarized in table 2. Direct care staff rated schizophrenia, access to weapons, mania, persecutory delusions, hallucinations, temporary/unqualified staff, working with volatile people, lack of crisis training, and high staff anxiety as “highly likely” to contribute to PVV while indirect care staff did not. Indirect care staff rated parent engagement in criminal activities, social deprivation, history of head trauma, history of neurological impairment, history of medical service, negative attitude, depression, poor physical environment, and poor temperature control as “highly likely” to contribute to PVV while direct care staff did not. It is notable that the indirect care staff did have one risk factor that received a mean score of 5: history of violence (results are summarized in Table 3).

When categorized into ‘highly likely,’ not every item yielded an average score of 4 or above deeming it more likely to contribute to acts aggression in the clinic environment. Staff differences were noted with direct care staff focusing more on the psychiatric history of patients and visitors as well as staff characteristics that may be triggering. Indirect care staff were more focused on the patient’s overall history of trauma and injury. Chi square analyses revealed significant differences between groups on the item related to being a registered nurse ($p=0.001$) with direct care staff rating this item more likely to contribute to acts of aggression than indirect care staff. Direct care staff also rated a history of weapons training significantly more likely to contribute to acts of aggression than indirect care staff ($p = 0.02$). Indirect care staff, however, rated a diagnosis of depression and uncomfortable seating in the waiting room as more likely to contribute to acts of aggression than direct care staff ($p = 0.02$ for both items) (results are summarized in table 4).

Research Experts

These data were presented to the content experts seeking their input. There was agreement amongst the experts that any risk factors for violence and aggression identified in hospital research were possible contributors to PVV in outpatient clinics. Experts also agreed that the clinical encounter begins from the minute a patient enters the clinic, not when a HCP joins a patient in an exam room. The time patients and visitors spend in the clinic when they are not interacting with staff can largely shape their experience and is often overlooked as an area of intervention. The experts agreed that interventions to make the waiting room experience more comfortable and interactive can have a large impact in shaping the experience of patients and visitors and therefore can lead to increasing clinic safety by reducing variable that could potentially lead to a patient or visitor's behavior becoming violent or aggressive (results summarized in table 5).

Patient Satisfaction Survey Results

Data from the patient satisfaction surveys over a two-year period revealed common themes of wait times being too long, a lack of activities to entertain children in the waiting room, and lack of technology related to TV programming and Wi-Fi access as areas for improvement (Table 6). This data overlaps with some of risk factors staff rated "highly likely" to contribute to aggression in their environment (e.g. overcrowding, long waits for service, poor temperature control, inadequate security). In September of 2017, adjustments to the outer clinic doors were made so that it would no longer remain open to the elements during the day. Since that time, no further complaints regarding temperature control in the waiting room were received. In January of 2018, the children's area was removed due to infection control concerns and there was an increase in comments

indicating a need to have activities available to engage younger patients and visitors. At check-in, younger patients and visitors were given a 4-pack of crayons as well as a 12-page 5x7 activity pad. Not only did this address infection control concerns as the younger guests were able to keep these items, but it also helped to keep the younger population occupied during their wait. As of April 2018, no further comments regarding the need to engage younger patients in the waiting room were received. Results are summarized in table 6.

Chapter 5

Discussion

The review of evidence to identify risk factors for PVV confirmed that many of the risk factors for violence identified in psychiatric patients (e.g.: younger age, lower socioeconomic status, substance abuse) are general risk factors for violence in the population at large (Iennaco, 2015). In particular, patients without psychiatric illnesses who use alcohol or drugs are seven times more likely than nonusers to engage in violent behavior (Friedman, 2006). While research on PVV has focused on inpatient and psychiatric environments, simply having a psychiatric diagnosis is not a guarantee that an act of violence or aggression will occur. In fact studies show that individuals with a psychiatric diagnosis are at greater risk of being a victim of violence than of being violent towards others (Stuart, 2003).

Our knowledge of static risk factors speaks to the importance of taking a comprehensive psychosocial history – in addition to a medical history – so that staff may be aware of a variety of factors that may make a patient’s behavior more unpredictable and volatile. This knowledge allows staff to be proactive in the prevention of acts of violence and aggression (e.g.: not seeing a patient with a history of violence during “off” clinic hours, calling 911 for ambulance transport when symptoms of intoxication or withdrawal are present).

In the clinic where staff perceptions were examined, the static risk factors for PVV rated most highly were a history of violence and a history of a diagnosis of major mental illness. Both of these areas can be determined by taking a comprehensive psychosocial history during a patient’s intake, however, this is not information that a

clinic would have available about someone accompanying a patient to a visit. Training regarding warning signs of anger and escalating behavior could help make up for this knowledge deficit about the history of visitors to the clinic. The dynamic risk factors most highly rated were related to substance abuse and dependence, including impairment by drugs or alcohol or drug-seeking behavior. Training regarding signs and symptoms of intoxication and withdrawal as well as the development of protocols for how to assess, treat, and, when applicable, transfer patients out for further intervention may help reduce lower levels of violence related to these risk factors as they may be identified earlier for appropriate intervention to take place. Staff and environmental risk factors that were highly rated by clinic staff were overcrowded waiting rooms, working with volatile people, unqualified staff, and long waits for service. Studying patterns in scheduling in the clinic can help determine times of higher volume of patients and visitors so that additional support staff may be scheduled to adequately support patients and visitors during that time. Closer attention to the type and duration of appointments being scheduled with providers during these times may also help to keep appointments running on time.

The review also calls attention to the lack of consensus regarding what constitutes PVV (Hahn et al., 2013; Hamrin, Iennaco & Olsen, 2009; Ridenour et al., 2015). In fact, Anderson and West (2011) noted that there is no universal definition of violence. However, how can effective interventions be proposed when there is no clear definition of the behavior that is being targeted? An agreed upon definition of PVV is needed in the research so that a common target may be identified for intervention and facilities may have a clear protocol for the reporting and management of events. It has been reported

that de-escalation training may subject HCPs to an increased number of aggressive events due to increased interaction with patients while their behavior is escalating (Price, 2015), however, research has also postulated that improved skills in de-escalation lead to increased efforts at, and involvement in de-escalation as well as more frequent exposure to lower-levels of PVV (e.g.: verbal as opposed to physical) (Hamrin, 2015). There is agreement that interventions targeting communication amongst staff, communication between HCPs and patients and their loved ones, and awareness of increasing anger and frustration in patients and loved ones may be helpful and lead to decreased incidents of PVV (Child & Menten, 2010; Gillespie et al., 2015; Hallett & Dickens, 2015; Price et al., 2015).

Differences in staff opinions call attention to some areas for education, training, and intervention. Direct care staff rated nurses more likely to experience PVV. This could be due to direct care staff having a better understanding of the exposure nurses have to patients and visitors during clinic visits than the indirect care staff. This could also indicate indirect care staff do not believe any one role is more at risk of experiencing PVV than another. This difference calls attention to the need for staff education regarding colleagues' roles and responsibilities within the clinic. Direct care staff also rated a history of weapons training significantly more likely to contribute to PVV suggesting they are somewhat desensitized to acts of verbal aggression and possibly anticipate that an act of violence or aggression would involve the presence of a weapon. This points to a need for de-escalation and crisis training in the ambulatory care environment so staff may understand the possibilities of violence and aggression and the different levels of PVV and the patterns of escalating behavior.

Indirect care staff rated a diagnosis of depression as more likely to contribute to acts of aggression. These staff interact members interact with patients over the phone and during clinic check-in/check-out. It is possible they find depression more likely to contribute to acts of violence and aggression due to experiences in which patients with diagnosed depression were irritable or angry and became verbally aggressive. It is also possible that direct care staff rated depression lower because they find themselves to be more “on alert” when a patient has a diagnosis of a serious mental illness than one of depression because, as indicated above, direct care staff seem to be more highly focused on acts of aggression and violence involving weapons. Indirect care staff also rated uncomfortable seating in the waiting room as more likely to contribute to acts of violence and aggression This is likely due to these staff being present in the waiting room and hearing patient and visitor complaints about the seating which is not something that a patient or visitor would often mention to their direct care providers.

It is important to remember that all risk factors on the staff survey had been identified as risk factors in the aggression and violence research conducted in hospitals and inpatient psychiatric units. When examining the perceptions of risk factors in the ambulatory care environment, not one risk factor was deemed unlikely to contribute to acts of aggression by all respondents. When looking at these data alongside patient satisfaction surveys, the environment of care presents as a large factor in the patient and visitor experience.

Results indicate many patients and staff note long wait times, lack of activities to keep patients and visitors engaged in the waiting room, and poor temperature control as highly likely to contribute to acts of aggression in this environment and as reasons for

low patient satisfaction scores. This is in agreement with prior research showing patients and visitors to be more satisfied and perceive a higher quality of care in patient-centered environments (Becker, Sweeney & Parsons, 2008). Research has also shown waiting to be the activity patients and visitors engage in the most when presenting for an ambulatory care visit and the waiting room experience has been shown to have an impact on patients' and visitors' mood and overall psychological state (Leddy et al., 2003; Leather et al., 2003). Furthermore, patients have been shown to rate interactions with staff more positively in more attractive care environments and feel more cared for, more welcome, and experience less anxiety and stress during their clinic visits (Becker & Douglass, 2008). It stands to reason, then, that efforts at minimizing violence and aggression in this environment must begin from the second patients and visitors enter the clinic and the waiting room experience is not to be ignored as part of the clinical encounter.

At this time, risk factors for PVV have not been examined in the ambulatory care setting and this research is a starting point for further work in this area. This work is limited in that it collected subjective staff opinions from a small sample that is not representative of all ambulatory care clinics and results cannot be generalized. Due to the small sample size, differences between individual groups could not be examined as anonymity would be lost. Violence and aggression were unable to be measured in this setting however, from clinical experience in this environment, the number of violent events that occur is quite low. Future research in this area may benefit from examining how often the police are called to the clinic, how often behavioral health staff are called in to help de-escalate a patient or visitor, and how often incidents regarding verbal

aggression and threats are reported to possibly present a more descriptive picture of PVV in ambulatory care.

It is clear that PVV in the ambulatory care environment involves a number of factors, some of which may be specific to the clinic and the population served, and there is no one intervention that will fully address all of the aspects of PVV. It will be important for future research to evaluate whether these factors drawn from inpatient psychiatric and other settings are related to actual occurrence of aggression in ambulatory care. A combination of continued research, clinical interventions, staff training, addressing patients' concerns in real time, and continued focus on creating a patient-centered environment are all needed in order to fully understand and address this issue (summarized in table 7).

Conclusions

At this time, PVV towards healthcare workers has not been examined within the outpatient environment despite this environment managing over 1 billion patient visits annually. Further investigation into risk factors for violence and aggression that are most common in this environment is needed for effective safety interventions to be proposed and implemented.

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Acknowledgements

Capstone Chair

Dr. Joanne D. Iennaco PhD, PMHNP-BC, PMHCNS-BC

Capstone Committee

Judith Kunisch MBA, BSN, RN

Dr. Jessica Coviello DNP, APRN, ANP-C

Dr. Jane Dixon PhD

Expert Panel

CAPT Marilyn Ridenour MBA, MPH, DSN, CPH, CIC

Dr. Marilyn Lanza DnSC, ARNP, CS, FAAN

Monique Mitchell MS, APRN, PMHCNS

Rosalyn Cama FASID, NCIDQ, EDAC

Consultant

Nancy Culos

Special Thanks

Mom and Dad

Expert Biographies

Captain Marilyn Lou Ridenour BSN, MBA, MPH, CPH, CIC is a Captain (CAPT) in the United States Public Health Service assigned to the National Institute for Occupational Safety and Health. CAPT Ridenour works as a nurse epidemiologist in the Analysis and Field Evaluation Branch of the Division of Safety Research. From 2005 to 2007, she was in the Epidemic Intelligence Service Training Program. Since 2005, she has worked on workplace violence in the healthcare sector. She is co project office for the Healthcare Violence prevention On-Line Best Practices Course, the Workplace Prevention Programs in New Jersey Health Care Facilities Project, and the Taxi-Driver Survey on Motor Vehicle Safety and Workplace Violence.

Dr. Marilyn Lanza DnSC, ARNP, FAAN

Monique Mitchell MS, PMHCNS, APRN is employed by Brigham and Women's Hospital in Boston as a Program Director for the Psychiatric Nursing Resource Service. With over 30 years of experience in psychiatric and mental health nursing she specializes in: providing expert consultation and coaching for complex medically ill patients who are experiencing behavioral disturbances; providing educational programs locally and nationally on topics such as delirium, dementia, substance use disorders, personality disorders and safety in the workplace; and project leadership for initiatives within the hospital addressing topics such as safety, delirium and psychiatric illness.

Rosalyn Cama FASID, NCIDQ, EDAC is president of CAMA, Incorporated, a leading health interior design lab and studio that spearheaded the evidence-based design movement. IN 2015, Rosalyn co-founded the Health Touch Collection with IOA Healthcare Furniture. The collection has collected many prestigious awards including a 2015 Best of The Year Award from Interior Design Magazine as well as multiple 2016 Nightingale Awards including the coveted, Best of Competition Award. Rosalyn holds a BS with Distinction in Interior Design and Textiles from the University of Connecticut and served as ASID's 24th President, is Chair Emeritus of the board of directors, and Chair of the advisory board for The Center for Health Design. Rosalyn authored *Evidence-Based Healthcare Design* (John Wiley & Sons, 2009) and frequently lectures on *Life Indoors* – an evaluation of the best practices to create places of wellbeing.

Table 1: Risk Factor Matrix

Anderson & West (2011)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Hx of Violence	Substance Abuse/Dependence		
Male Gender	Persecutory Delusions		
Young Adulthood	Command Hallucinations		
Lower Intelligence	Depression		
Hx of Head Trauma	Hopelessness		
Hx of Neurological Impairment	Dissociative State		
Hx of Military Service	Suicidality		
Weapons Training	Treatment Nonadherence		
Past Dx of Major Mental Illness	Impulsivity		
Hx of Impulsivity	Access to Weapons		
Hx of Victimization	Homicidality		

Hahn et al. (2013)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Older Age		Younger Age	Emergency Room
		Registered Nurse	Outpatient Ward
		Aggression Training	
		Frequent Visitor Contact	

Price et al. (2015)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
		De-escalation training	

Hamrin et al. (2009)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Hx of Personality Disorders Dementia Gender Extremes of Age	Psychosis Mania Hallucinations Intoxication	High Staff Anxiety Observational Skills Communication Skills Job Satisfaction	

Speroni et al. (2014)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Diagnosis of Alzheimer’s Diagnosis of Dementia	Drug-Seeking Behavior Impaired by Drugs or Alcohol		

Gunenc et al. (2015)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
	Impulsivity Negative Attitude Medication Noncompliance		

Bowers et al. (2013)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Social Deprivation of Population Schizophrenia		Temporary or Unqualified Ethnic Minority Groups	Physical Environment

NIOSH (2002)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
	Cognitive Impairment Drug Seeking Aggressive/Violent Tendencies	Working with Volatile People Working alone with P/V Lack of Crisis Training	Understaffing Long Waits for Service Crowded Waiting Rooms Poor lighting Poor temperature control Uncomfortable Seating Inadequate Security

NIAAA (2010)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Hx of Victimization Hx of Physical Abuse Parents Engaged in Criminal Activities Younger Age Lower Socioeconomic Status	Unemployment Substance Abuse/Intoxication Substance Withdrawal Psychosis Mania		

Ridenour et al. (2015)

<u>Static</u>	<u>Dynamic</u>	<u>Staff-Related</u>	<u>Environmental</u>
Hx of Personality Disorder		Younger Age Aggression/Crisis Training Temporary or Unqualified	

Table 2: Staff Perceptions of Risk Factors of PVV in Ambulatory Care

	Mean (SD)	Very Likely #(%)
<u>Unchangeable (Static)</u>		
<i>Demographic:</i>		
Parent Engagement in Criminal Activities	3.94 (0.94)	14 (77.8)
Social Deprivation	3.89 (0.96)	13 (72.2)
Lower Socioeconomic Status	3.44 (0.92)	9 (50.0)
Lower Intelligence	3.22 (1.11)	8 (44.4)
Gender	3.17 (1.20)	9 (50.0)
Age	2.83 (0.92)	4 (22.2)
<i>History of:</i>		
Violence	4.50 (0.62)	17 (95.5)
Physical Abuse	4.17 (0.71)	17 (95.5)
Impulsivity	4.11 (0.76)	16 (88.9)
Head Trauma	3.94 (0.94)	12 (66.7)
Victimization	3.89 (0.83)	13 (72.2)
Neurological Impairment	3.78 (0.94)	10 (55.6)
Military Service	3.50 (1.29)	10 (55.6)
Weapons Training	3.33 (1.08)	9 (50.0)
<i>Psychiatric History:</i>		
Major Mental Illness	4.28 (0.75)	17 (95.5)
Schizophrenia	3.94 (1.00)	15 (83.3)
Personality Disorder	3.72 (1.02)	13 (72.2)
Alzheimer's Disease	3.33 (1.24)	8 (44.4)
Dementia	3.22 (1.26)	8 (44.4)

	Mean (SD)	Very Likely #(%)
<u>Changeable (Dynamic)</u>		
<i>Demographic:</i>		
Access to Weapons	4.06 (0.64)	15 (83.3)
Negative Attitude	4.00 (0.77)	13 (72.2)
Treatment Nonadherence	3.72 (0.75)	12 (66.7)
Unemployment	2.83 (1.15)	5 (27.8)
<i>Psychiatric:</i>		
Aggressive/Violent Tendencies	4.72 (0.46)	18 (100.0)
Homicidality	4.50 (0.79)	17 (95.5)
Impulsivity	4.28 (0.57)	17 (95.5)
Psychosis	4.22 (0.43)	18 (100.0)
Dissociative State	4.22 (0.65)	16 (88.9)
Command Hallucinations	4.06 (0.73)	14 (77.8)
Mania	4.00 (0.84)	14 (77.8)
Persecutory Delusions	3.94 (0.87)	13 (72.2)
Hallucinations	3.94 (0.73)	13 (72.2)
Cognitive Impairment	3.78 (0.88)	13 (72.2)
Suicidality	3.06 (1.35)	7 (38.9)
Depression	3.00 (1.41)	7 (38.9)
Hopelessness	2.72 (1.49)	7 (38.9)
<i>Substance Abuse:</i>		
Substance Withdrawal	4.50 (0.62)	17 (95.5)
Impairment by drugs or alcohol	4.50 (0.62)	17 (95.5)
Intoxication	4.44 (0.62)	17 (95.5)
Drug-Seeking Behavior	4.39 (0.61)	17 (95.5)
Substance Dependence	4.17 (0.79)	16 (89.9)

	Mean (SD)	Very Likely #(%)
<u>Staff-Related Risk Factors</u>		
Temporary/Unqualified Staff	4.00 (0.84)	14 (77.8)
Working with volatile people	4.00 (1.08)	14 (77.8)
Lack of Crisis Training	3.94 (1.00)	14 (77.8)
High staff anxiety	3.83 (0.99)	13 (72.2)
Working alone with P/V	3.83 (0.92)	14 (77.8)
Frequent visitor contact	3.56 (0.92)	11 (61.1)
Registered Nurse	3.33 (1.19)	10 (55.6)
Younger Age	2.83 (0.99)	3 (16.7)
Aggression/Crisis Training	2.39 (1.24)	3 (16.7)
Belong to Ethnic Minority Group	2.28 (1.23)	3 (16.7)
<u>Environmental Risk Factors</u>		
Overcrowded waiting rooms	4.28 (0.83)	16 (88.9)
Long waits for service	4.22 (0.81)	16 (88.9)
Understaffing	4.17 (0.71)	15 (83.3)
Inadequate Security	4.11 (0.96)	16 (88.9)
Poor physical environment	4.00 (1.08)	12 (66.7)
Poor temperature control	3.83 (0.92)	13 (72.2)
Poor lighting	3.44 (0.92)	9 (50.0)
Uncomfortable Seating	3.11 (1.08)	7 (38.9)

SD = standard deviation

Table 3. Staff Perceptions of Risk Factors of PVV in Ambulatory Care – Direct vs. Indirect Care Staff

	Total Sample		Direct Care		Indirect Care		p-value
	Mean	SD	Mean	SD	Mean	SD	
Unchangeable (Static)							
<i>Demographic:</i>							
Parent Engagement in Criminal Activities	3.94	0.94	3.82	0.98	4.14	0.90	0.49
Social Deprivation	3.89	0.96	3.64	1.03	4.29	0.76	0.17
Lower Socioeconomic Status	3.44	0.92	3.36	1.03	3.57	0.79	0.66
Lower Intelligence	3.22	1.11	3.27	1.35	3.14	0.69	0.82
Gender	3.17	1.20	2.91	1.45	3.57	0.53	0.19
Age	2.83	0.92	2.64	1.03	3.14	0.69	0.27
<i>History of:</i>							
Violence****	4.50	0.62	4.18	0.60	5.00	0.00	0.00
Physical Abuse	4.17	0.71	4.00	0.77	4.43	0.53	0.22
Impulsivity	4.11	0.76	4.09	0.54	4.14	1.07	0.91
Head Trauma	3.94	0.94	3.64	0.92	4.43	0.79	0.08
Victimization	3.89	0.83	3.91	0.70	3.86	1.07	0.90
Neurological Impairment	3.78	0.94	3.55	0.93	4.14	0.90	0.20
Military Service	3.50	1.29	3.18	1.33	4.00	1.15	0.20
Weapons Training	3.33	1.08	3.55	1.29	3.00	0.58	0.31
<i>Psychiatric History:</i>							
Major Mental Illness	4.28	0.75	4.36	0.50	4.14	1.07	0.62
Schizophrenia	3.94	1.00	4.18	0.87	3.57	1.13	0.22
Personality Disorder	3.72	1.02	3.91	0.83	3.43	1.27	0.34
Alzheimer's Disease	3.33	1.24	3.45	1.37	3.14	1.07	0.62
Dementia	3.22	1.26	3.45	1.37	2.86	1.07	0.34

	Total Sample		Direct Care		Indirect Care		p-value*
	Mean	SD	Mean	SD	Mean	SD	
Changeable (Dynamic)							
<i>Demographic:</i>							
Access to Weapons	4.06	0.64	4.18	0.60	3.86	0.69	0.31
Negative Attitude	4.00	0.77	3.82	0.75	4.29	0.76	0.22
Treatment Nonadherence	3.72	0.75	3.82	0.60	3.57	0.98	0.51
Unemployment	2.83	1.15	2.64	1.21	3.14	1.07	0.38
<i>Psychiatric:</i>							
Aggressive/Violent Tendencies	4.72	0.46	4.64	0.50	4.86	0.38	0.34
Homicidality	4.50	0.79	4.55	0.52	4.43	1.13	0.80
Impulsivity	4.28	0.57	4.18	0.60	4.43	0.53	0.39
Psychosis	4.22	0.43	4.18	0.40	4.29	0.49	0.63
Dissociative State	4.22	0.65	4.09	0.54	4.43	0.79	0.29
Command Hallucinations	4.06	0.73	4.09	0.70	4.00	0.82	0.80
Mania	4.00	0.84	4.09	0.83	3.86	0.90	0.58
Persecutory Delusions	3.94	0.87	4.09	0.70	3.71	1.11	0.39
Hallucinations	3.94	0.73	4.00	0.63	3.86	0.90	0.70
Cognitive Impairment	3.78	0.88	3.82	0.75	3.71	1.11	0.82
Suicidality	3.06	1.35	2.73	1.35	3.57	1.27	0.20
Depression**	3.00	1.41	2.36	1.21	4.00	1.15	0.01
Hopelessness	2.72	1.49	2.27	1.42	3.43	1.40	0.11
<i>Substance Abuse:</i>							
Substance Withdrawal**	4.50	0.62	4.27	0.65	4.86	0.38	0.05
Impairment by drugs or alcohol**	4.50	0.62	4.27	0.65	4.86	0.38	0.05
Intoxication	4.44	0.62	4.27	0.65	4.71	0.49	0.14
Drug-Seeking Behavior**	4.39	0.61	4.18	0.60	4.71	0.49	0.07
Substance Dependence	4.17	0.79	4.09	0.83	4.29	0.76	0.62

	Total Sample		Direct Care		Indirect Care		p-value*
	Mean	SD	Mean	SD	Mean	SD	
<u>Staff-Related Risk Factors</u>							
Temporary/Unqualified Staff	4.00	0.84	4.09	0.94	3.86	0.69	0.58
Working with volatile people	4.00	1.08	4.18	0.75	3.71	1.50	0.46
Lack of Crisis Training	3.94	1.00	4.09	0.70	3.71	1.38	0.52
High staff anxiety	3.83	0.99	4.00	0.77	3.57	1.27	0.38
Working alone with P/V	3.83	0.92	3.91	0.54	3.71	1.38	0.73
Frequent visitor contact	3.56	0.92	3.73	0.90	3.29	0.95	0.34
Registered Nurse**	3.33	1.19	3.91	0.83	2.43	1.13	0.01
Younger Age**	2.83	0.99	3.18	0.87	2.29	0.95	0.06
Aggression/Crisis Training	2.39	1.24	2.64	1.43	2.00	0.82	0.30
Belong to Ethnic Minority Group	2.28	1.23	2.18	1.25	2.43	1.27	0.69
<u>Environmental Risk Factors</u>							
Overcrowded waiting rooms	4.28	0.83	4.09	0.94	4.57	0.53	0.24
Long waits for service	4.22	0.81	4.00	0.89	4.57	0.53	0.15
Understaffing	4.17	0.71	4.00	0.63	4.43	0.79	0.22
Inadequate Security	4.11	0.96	4.18	1.17	4.00	0.58	0.71
Poor physical environment	4.00	1.08	3.91	1.04	4.14	1.21	0.67
Poor temperature control	3.83	0.92	3.55	0.93	4.29	0.76	0.10
Poor lighting	3.44	0.92	3.45	0.93	3.43	0.98	0.96
Uncomfortable Seating**	3.11	1.08	2.64	1.03	3.86	0.69	0.01

SD = Standard Deviation

*Based on of Direct vs. Indirect Staff Means t-test

Table 4: Differences in Direct and Indirect Care Staff Perceptions of PVV Risk Factors

	Very Likely # (%)			Chi Sq	Df	P-value
	All Staff N=18	Direct N=11	Indirect N=7			
Unchangeable (Static)						
<i>Demographic</i>						
Parent Engagement in Criminal Activities	14 (77.8)	9 (81.8)	5 (71.4)	0.27	1	0.61
Social Deprivation	13 (72.2)	7 (63.6)	6 (85.7)	1.04	1	0.31
Gender	9 (50.0)	5 (45.5)	4 (57.1)	0.23	1	0.63
Lower Socioeconomic Status	9 (50.0)	6 (54.6)	3 (42.9)	0.23	1	0.63
Lower Intelligence	8 (44.4)	6 (54.6)	2 (28.6)	1.17	1	0.28
Age	4 (22.2)	2 (18.2)	2 (28.6)	0.27	1	0.61
<i>History of:</i>						
Violence	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Physical Abuse	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Impulsivity	16 (88.9)	10 (90.9)	6 (85.7)	0.12	1	0.73
Victimization	13 (72.2)	8 (72.7)	5 (71.4)	0.00	1	0.95
Head Trauma	12 (66.7)	6 (54.6)	6 (85.7)	1.87	1	0.17
Neurological Impairment	10 (55.6)	5 (45.5)	5 (71.4)	1.17	1	0.28
Military Service	10 (55.6)	5 (45.5)	5 (71.4)	1.17	1	0.28
Weapons Training*	9 (50.0)	8 (72.7)	1 (14.3)	5.84	1	0.02
<i>Psychiatric History</i>						
Major Mental Illness	17 (95.5)	11 (100.0)	6 (85.7)	1.66	1	0.20
Schizophrenia	15 (83.3)	10 (90.9)	5 (71.4)	1.17	1	0.28
Personality Disorder	13 (72.2)	9 (81.8)	4 (57.1)	1.30	1	0.25
Dementia	8 (44.4)	6 (54.6)	2 (28.6)	1.17	1	0.28
Alzheimer's Disease	8 (44.4)	6 (54.6)	2 (28.6)	1.17	1	9.28

*p≤ 0.05

	Very Likely # (%)			Chi Sq	Df	P-value
	All Staff (N=18)	Direct (N=11)	Indirect (N=7)			
Changeable (Dynamic)						
<i>Demographic</i>						
Access to Weapons	15 (83.3)	10 (90.9)	5 (71.4)	1.17	1	0.28
Negative Attitude	13 (72.2)	7 (63.6)	6 (85.7)	1.04	1	0.31
Treatment Nonadherence	12 (66.7)	8 (72.7)	4 (57.1)	0.47	1	0.49
Unemployment	5 (27.8)	3 (27.3)	2 (28.6)	0.00	1	0.95
<i>Psychiatric</i>						
Aggressive/Violent Tendencies	18 (100.0)	11 (100.0)	7 (100.0)			
Psychosis	18 (100.0)	11 (100.0)	7 (100.0)			
Impulsivity	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Homicidality	17 (95.5)	11 (100.0)	6 (85.7)	1.66	1	0.20
Dissociative State	16 (88.9)	10 (90.9)	6 (85.7)	0.12	1	0.73
Command Hallucinations	14 (77.8)	9 (81.8)	5 (71.4)	0.27	1	0.61
Mania	14 (77.8)	10 (90.9)	4 (57.1)	2.82	1	0.09
Cognitive Impairment	13 (72.2)	9 (81.8)	4 (57.1)	1.30	1	0.25
Hallucinations	13 (72.2)	9 (81.8)	4 (57.1)	1.30	1	0.25
Persecutory Delusions	13 (72.2)	9 (81.8)	4 (57.1)	1.30	1	0.25
Depression	7 (38.9)	2 (18.1)	5 (71.4)	4.10	1	0.02
Hopelessness	7 (38.9)	3 (27.2)	4 (57.1)	1.61	1	0.21
Suicidality	7 (38.9)	3 (27.2)	4 (57.1)	1.61	1	0.21

	Very Likely # (%)			Chi Sq	Df	P-value
	All Staff (N=18)	Direct (N=11)	Indirect (N=7)			
<i>Substance Abuse</i>						
Drug-Seeking Behavior	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Intoxication	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Substance Withdrawal	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Impairment by drugs or alcohol	17 (95.5)	10 (90.9)	7 (100.0)	0.67	1	0.41
Substance Dependence	16 (89.9)	10 (90.9)	6 (85.7)	0.12	1	0.73
Staff-Related Risk Factors						
Working alone with P/V	14 (77.8)	9 (81.8)	5 (71.4)	0.27	1	0.61
Temporary/Unqualified Staff	14 (77.8)	9 (81.8)	5 (71.4)	0.27	1	0.61
Lack of Crisis Training	14 (77.8)	9 (81.8)	5 (71.4)	0.27	1	0.61
Working with volatile people	13 (72.2)	9 (81.8)	4 (57.1)	1.30	1	0.25
High staff anxiety	13 (72.2)	8 (72.7)	5 (71.4)	0.00	1	0.95
Frequent visitor contact	11 (61.1)	7 (63.6)	4 (57.1)	0.08	1	0.78
Registered Nurse**	10 (55.6)	9 (81.8)	1 (14.3)	7.90	1	0.001
Younger Age	3 (16.7)	3 (27.2)	0 (0.0)	2.29	1	0.13
Aggression/Crisis Training	3 (16.7)	3 (27.2)	0 (0.0)	2.29	1	0.13
Belonging to Ethnic Minority Groups	3 (16.7)	1 (9.1)	2 (28.6)	1.17	1	0.28

	<u>Very Likely # (%)</u>			<u>Chi Sq</u>	<u>Df</u>	<u>P-value</u>
	<u>All Staff</u> (N=18)	<u>Direct</u> (N=11)	<u>Indirect</u> (N=7)			
<u>Environmental Risk Factors for PVV</u>						
Inadequate Security	16 (88.9)	10 (90.9)	6 (85.7)	0.12	1	0.73
Long waits for service	16 (88.9)	9 (81.8)	7 (100.0)	1.43	1	0.23
Overcrowded waiting rooms	16 (88.9)	9 (81.8)	7 (100.0)	1.43	1	0.23
Understaffing	15 (83.3)	9 (81.8)	6 (85.7)	0.05	1	0.83
Poor temperature control	13 (72.2)	7 (63.6)	6 (85.7)	1.04	1	0.31
Poor physical environment	12 (66.7)	7 (63.6)	5 (71.4)	0.12	1	0.73
Poor lighting	9 (50.0)	6 (54.6)	3 (42.9)	0.23	1	0.63
Uncomfortable Seating*	7 (38.9)	2 (18.2)	5 (71.4)	5.10	1	0.02

*p< 0.05; **p≤ 0.001

Table 5: Health Center Patient Satisfaction Data

Month	Completed Surveys #	Waiting Room Comments #	Wait time too long #	No children's area #	Poor temperature control #	No TV/Wifi #	Other
Mar-16	20	0	-	-	-	-	-
Apr-16	20	2	0	2	0	0	0
May-16	20	4	1	2	0	1	0
Jun-16	20	4	2	1	0	0	1
Jul-16	20	2	2	0	0	0	0
Aug-16	30	3	1	0	0	1	1
Sep-16	30	3	2	0	0	0	1
Oct-16	30	1	0	0	0	1	0
Nov-16	30	2	2	0	0	0	0
Dec-16	30	4	1	1	0	1	1
Jan-17	30	2	2	0	0	0	0
Feb-17	30	2	1	0	0	1	0
Mar-17	30	0	-	-	-	-	-
Apr-17	30	2	1	0	1	0	0
May-17	30	2	1	0	1	0	0
Jun-17	30	2	1	0	1	0	0
Jul-17	30	3	1	0	2	0	0
Aug-17	30	5	3	0	2	0	0
Sep-17	30	2	1	0	0	1	0
Oct-17	30	2	2	0	0	0	0
Nov-17	30	3	2	1	0	0	0
Dec-17	30	2	2	0	0	0	0
Jan-18	30	3	3	0	0	0	0

Table 6: Expert Feedback

CAPT Marilyn Ridenour BSN, MBA MPH, CPH, CIC:

- Risk factors for violence and aggression are not exclusive to the environment in which they occur
 - Cannot address the issue of violence and aggression without it being defined
 - Will run into resistance when studying violence and aggression
 - Partnerships with leaders are essential when conducting this research
 - Current laws are not useful as written unless major harm has occurred – on the books but not enforced
 - Everyone has a right to a safe work environment
-

Dr. Marilyn Lanza DnSC, ARNP, CS, FAAN

- Intent does not matter when an act of violence or aggression occurs
 - Everyone who interacts with P/V should be trained in de-escalation and recognition of the cycle of violence
 - Safety measures are not one size fits all
-

Monique Mitchell MS, APRN, PMHCNS

- Front desk staff spent the most time with P/V
 - Least clinically educated and least clinically supported
 - De-escalation techniques and safety interventions from hospitals need to be transitioned into outpatient settings
 - Staff need to be trained and educated on how to work with patients who are agitated and escalating
 - Flow-charts and/or role-plays are helpful educational tools
-

Rosalyn Cama FASID, NCIDQ, EDAC

- P/V are neglected guests in our care giving environment
 - “Time between” when P/V are not with clinical staff is a wasted opportunity
 - P/V should never be left alone without a purpose
 - What would you like to teach them? What behavior are you trying to control or improve?
-

Table 7: Implications for Action

Clinical:

- Training to take comprehensive psychosocial history that includes risk factors for aggression and violence ^
 - Scheduling of visits with high risk patients when other staff and/or security are available ^
 - Ability to better assess the level of intoxication and ingested substances at clinic visits
 - Transporting intoxicated or withdrawing patients to appropriate treatment settings ^
-

Improvement of Patient-Centered Environment

- Increasing comfort and attractiveness of environment ^ ~
 - View waiting time as an important element of clinic visit ^
 - Active intervention to address patient satisfaction concerns ^
 - Managing wait times ^ ~
 - Lack of information about delays ~
 - Lack of activities to engage patients and visitors while waiting for providers ^ ~
 - Poor temperature control ~
-

Research:

- Defining PVV
 - Define standards for measurement of aggression in ambulatory care
 - Does intervention improve communication between staff, HCP, and patients/visitors?
 - Does de-escalation/crisis training reduce physical aggression while increasing staff exposure to verbal aggression?
 - Does intervention increase identification of anger and frustration leading to earlier intervention?
-

Source of action: ^ evidence based review; ~ patient satisfaction surveys

Figure 1: Staff Survey

Thank you for taking part in this project. Please consider the risk factors for patient and visitor violence (PVV) listed below and score whether you believe they make violent acts more or less likely to occur in the ambulatory care setting. A score of 1 indicates an act of violence is not likely at all and a score of 5 indicates a violent act is almost certain to occur.

Please indicate your role within the clinic: _____

Not Likely		Unsure		Very Likely
1	2	3	4	5

Unchangeable (Static)

Demographic

- Age
- Gender
- Lower Socioeconomic Status
- Social Deprivation
- Lower Intelligence
- Parent Engagement in Criminal Activities
- Other (list your own)

History

- History of Violence
- History of Head Trauma
- History of Neurological Impairment
- History of Military Service
- History of Physical Abuse
- History of Impulsivity
- History of Victimization
- History of Weapons Training
- Other (list your own)

Psychiatric History

- Dementia
- Personality Disorder
- Schizophrenia
- Alzheimer's Disease
- Major Mental Illness
- Other (list your own)

Not Likely		Unsure		Very Likely
1	2	3	4	5

Changeable (Dyanmic)

Demographic

- Unemployment
- Treatment Nonadherence
- Access to Weapons
- Negative Attitude
- Other (list your own)

Psychiatric

- Persecutory Delusions
- Command Hallucinations
- Depression
- Psychosis
- Dissociative State
- Mania
- Hallucinations
- Hopelessness
- Suicidality
- Impulsivity
- Homicidality
- Aggressive/Violent Tendencies
- Cognitive Impairment
- Other (list your own)

Substance Abuse

- Drug-Seeking Behavior
- Intoxication
- Substance Dependence
- Substance Withdrawal
- Impairment by drugs or alcohol
- Other (list your own)

Not Likely		Unsure		Very Likely
1	2	3	4	5

Staff-Related Risk Factors

Younger Age					
Registered Nurse					
Aggression/Crisis Training					
Frequent visitor contact					
High staff anxiety					
Temporary/Unqualified Staff					
Belonging to Ethnic Minority Groups					
Working with volatile people					
Working alone with P/V					
Lack of Crisis Training					
Other (list your own)					

Environmental Risk Factors for PVV

Poor physical environment					
Understaffing					
Long waits for service					
Overcrowded waiting rooms					
Poor lighting					
Poor temperature control					
Uncomfortable Seating					
Inadequate security					
Other (list your own)					

Glossary

Definitions adapted from: Gerrig, R.G., & Zimbardo, P.G. (2002). *Psychology and life, 16th edition*. Retrieved from: <http://www.apa.org/research/action/glossary.aspx>.

Alzheimer's Disease: a chronic brain syndrome involving gradual loss of memory, decline in intellectual ability, and deterioration of personality.

Cognitive Impairment: a reduced ability to remember, reason, attend to new information, or process concepts and/or memories

Delusions: false or irrational beliefs maintained despite clear evidence to the contrary. In persecutory delusions, the person believes harm is occurring (or will occur), and the perceived prosecutor has the intention to cause harm.

Dementia: any decline in one's mental ability that interferes with daily life.

Dissociative state: disruption in the integration of identity, memory, or consciousness sometimes resulting the presence of more than one distinct personality within the same individual.

Hallucinations: the perception of hearing, seeing, tasting, smelling, or feeling something without the occurrence of objective stimulation. The experience of command hallucinations involves hearing someone or something (or numerous people) telling you what to do.

Major Mental Illness: when one has a diagnosable mental, behavioral, or emotional disorder that has led to serious impairment in functioning and limits or interferes with one or more major life activities i.e.: employment, self-care, and bathing.

Mania: a period of extremely high energy, euphoria without sufficient reason, and grandiose thoughts or feelings about one's personal abilities.

Personality Disorder: a chronic, inflexible, maladaptive pattern of perceiving, thinking, and behaving that seriously impairs an individual's ability to function in social or other settings.

Psychosis: impairment in "reality testing" manifested via thought, emotional, or perceptual difficulties.

Schizophrenia: a severe disorder involving the breakdown of integrated personality functioning, withdrawal from reality, emotional distortions, and disturbed thought processes.