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Sources of Social Support after Patient Assault as Related to Staff Well-Being

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Abstract

Patient assault is a serious issue for the well-being of staff in psychiatric hospitals. In order to guide workplace responses to patient assault, more information is needed about social support from different sources and whether those supports are associated with staff well-being. The present study examines social support after patient assault from work-based and non-work-based sources and whether inpatient psychiatric staff desire support from them and perceive the support received as being effective. Received support across sources was examined in relations to staff well-being (physical health, mental health, anger, sleep quality) and perceptions of safety. Survey data was collected from 348 clinical staff in a large public forensic mental hospital. Among the 242 staff who reported an assault in the last year, 71% wanted support and 72% found effective support from at least one source. Generally, effective support from supervisors, coworkers, and their combination was associated with better well-being. Support from non-work sources was related to less concerns about safety, but not to other well-being measures. However, 28% of staff did not receive effective support from any source post-assault. Gaps in support as reported in this study and as found by other investigators call for systematic programing by hospital organizations to enhance the well-being of clinical staff, which in turn has implications for patient care.

Keywords

workplace violence; mental health and violence; violence exposure

Providing psychiatric care to hospitalized patients can take a toll on staff as they experience high rates of verbal aggression and physical assault (Phillips, 2016). A recent review of violence toward nurses internationally found that 55% of nurses in psychiatric settings experienced physical assault, and 73% experienced verbal aggression annually (Spector, Zhou, & Che, 2014). Ward-level and clinical staff learn to use a variety of coping skills to deal with assault risk, but the general trauma literature indicates that social support is one of the most important predictors of outcomes following exposure to violent trauma (Brewin, Andrews, & Valentine, 2000; Johansen et al., 2007; Ozer et al., 2003). In the context of

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violence victimization in hospitals, psychiatric or otherwise, there has been surprising little research concerning social support, despite early attention provided by Lanza (1983; 1992) and Whittington and Wykes (1992). Further, there has been no systematic research about the sources from whom staff want support after patient assault, which sources provide effective support, and how variations in support might be associated with staff well-being and perceptions of workplace safety. The present study examines the desire for social support and the perceived effectiveness of social support received from seven different sources for psychiatric staff in a large public mental hospital. It evaluates how support is associated with five staff outcomes: physical health, sleep quality, anger, depression, and perceptions of safety. The study inquiry bears on hospital workplace practices and interventions pertinent to staff recovery from assault.

The present study builds on our previous work that examined the impact of workplace violence experiences on the well-being of psychiatric staff (Kelly, Fenwick, Brekke, & Novaco, 2016). Previously, we found that patient assault was related to staff safety concerns and mental health problems, controlling for staff background variables, but that intrastaff conflict had a greater number of associations with staff stress indicators (i.e., anger/irritability, depression, safety concerns, and physical health problems). Those results called attention to the critical role that workplace relationships play in staff well-being. However, that study did not examine the role of supportive or non-supportive workplace relationships. Using the sample from the Kelly and colleagues (2016) study, we here examine whether social support, wanted and received from non-work and work-based support sources, might mitigate the adverse effects of patient assault on well-being.

Background

Patient assault has a detrimental impact on staff well-being (Arnetz & Arnetz, 2001; Needham et al., 2005; Kelly et al., 2016). In addition to physical injuries sustained as a result of the assault, staff may experience other physical health outcomes such as chronic pain, musculoskeletal issues, and headaches (Levin, Hewitt, & Misner, 1998; Gerberich et al., 2004; Miranda, Pennett, Gore, & ProCare Research Team, 2014). Assaulted staff commonly experience psychological distress, as evidenced in a large sample study in the Netherlands finding that one-fifth of psychiatric inpatient workers experienced mental health problems following a threatened or actual patient assault (van Leeuwen & Harte, 2015). Commonly reported mental health problems include shock, frustration, anger, irritability, depression, sleep disturbances, burnout, and increased concerns about workplace safety (Anderson & West, 2011; Erdos & Hughs, 2001; Gerberich et al. 2004; Jussab & Murphy, 2015; Moylan et al., 2014; Needham et al. 2005; Stevenson, Jack, O'Mara, & LeGris, 2015).

Social support may mitigate the negative impact of patient assault on staff outcomes. Studies have demonstrated that social support is a buffer between workplace stress and adverse outcomes in a range of employment settings, including healthcare (Viswesvaren, Sanchez, & Fisher, 1999; van Emmerik, Euwema, & Bakker, 2007; Jenkins & Elliot, 2004). Following violent trauma outside of hospitals, social support is associated with fewer somatic symptoms, greater well-being, lower likelihood of developing PTSD, and better readjustment (Ozer et al., 2003; Sales, Baum, & Shore, 1984; Richards, 2000; Johansen et

al., 2007). In the psychiatric hospital context, Whittington & Wykes (1992) and Driscoll, Worthington, & Hurrell, Jr. (1995) found that social support was associated with reduced strain symptoms for staff after assault; however, several sources of social support were grouped together in these studies, and individual sources were not examined. Research differentiating sources of support is needed since the effectiveness of the support provided may depend on its alignment with staff needs and preferences (Barrera, 1986; Kaufman & Beehr, 1989).

Staff may have different preferences for work-based versus non-work-based sources of support after patient assault. Work-based sources can provide support immediately following the assault, are convenient to access, and are intimately familiar with the organizational environment. Work-based support providers are also more likely to find out about the assault, even if indirectly through shift reports or the medical record, and many assaults are not reported through formal systems, but to co-workers and ward-level managers (Pompeii et al., 2016). These proximally based colleagues can offer support without being approached by the assaulted person. Among work-based support sources, the most frequently studied are coworkers and supervisors, with less known about other potentially important work-based sources, such as security staff or administrators.

Staff typically report that they receive more support from their coworkers than from their supervisors or managers following assault (Whittington & Wykes, 1992; Nolan et al., 1999; Azar, Badr, Samaha, & Dee, 2016). Social support from coworkers has been found to buffer against an unsafe work climate in a study of constabulary officers (van Emmerik et al., 2007) and is associated with improved occupational outcomes and reduced stress in healthcare settings (Jenkins & Elliott, 2004; AbuAlRub, 2004; Ducharme, Knudsen, & Roman, 2007). General support from supervisors has also been linked to positive staff outcomes (Hall, 2007; Finderoff, McGovern, Wall, Gerberich, & Alexander, 2004; Constable & Russell, 1986), but the impact of supervisor support following patient assault may be more complex. In a large cross-sectional study of nurses in Lebanon, although support from coworkers was more common, support from supervisory/managerial sources decreased nurses' intentions to quit their jobs whereas coworker support did not (Azar et el., 2016). A small study examining supervisory support provided to psychiatry residents following adverse events, including patient assault, found that supervision could have both positive and negative impacts on emotional reactions to the adverse event (Deringer & Caligor, 2014), while another cross-sectional study of nursing home staff found no association between staff musculoskeletal pain and supervisor support (Miranda et al., 2014).

Some staff may become desensitized or numb after repeated assault exposures and not seek support or perceive its value (Stevenson et al., 2015). Some staff may be reluctant to access work-based support, fearing backlash or blame for the assault (Chambers, 1998; Lanza et al., 2011). These staff may rely on non-work sources, such as friends, family, and significant others. Studies examining social support from non-work sources are limited, but there is some evidence that support from friends, family, and significant others are associated with beneficial outcomes, such as improvements in strain, health, and job satisfaction (Munro, Rodwell & Harding, 1998). However, non-work-based sources of support may be less effective than work-based sources. In a meta-analysis of social support including studies

from a range of workplace settings, Viswesvaran and colleagues (1999) found that social support from family and friends was significantly associated with reduced strain, but that the association was smaller than those for work-based sources. Another study found that family support was associated with greater intention to leave the job, while support from work-based sources was associated with greater intention to stay among hospital nurses (AbuAlRub, 2010).

The Current Study

To guide hospital workplace responses to patient assault, more information is needed about the desirability and efficacy of support from different sources and the relationship of those support variables with staff well-being outcomes. In this study, we examine the desire for and effectiveness of seven different work-based and non-work-based sources of support regarding their association with staff physical health, mental health, anger, sleep quality, and perceptions of safety. We aim to: 1) describe the patterns of support that staff want and correspondingly perceive to be effective from different sources; 2) compare work-based (supervisors and coworkers) and non-work-based (friends and family) sources of support in terms of their association with staff well-being and perceived safety; and 3) examine whether staff who receive effective support from a supervisor, a coworker, or both have better well-being and perceived safety, compared to those who did not receive support.

Based on previous research we hypothesize that: (i) the majority of staff will desire and find effective social support from at least one source; (ii) staff will want support from more sources than they find to be effective following assault; (iii) support from work-based sources will be more effective than support from non-work-based sources; and (iv) support from coworkers will be more beneficial than will support from supervisors.

Method

Participants

An online survey link was emailed to the 1794 clinical, direct care staff members of a large mixed-gender hospital in California with a capacity of 1,287 beds (average treatment population was 1,500+ patients). The majority of patients are judicial (court-ordered) commitments. The most common diagnoses treated at the hospital are severe mental illnesses and co-occurring substance use disorders. The survey link was opened by 488 employees (27%). Of those 488, 348 responded about their assault and social support after assault experiences (71% of those who began the survey). Full demographics of the hospital staff are available in Kelly and colleagues (2016). The sample (Table 1) reflected the distribution of the staff positions within the hospital but was slightly over-representative of Caucasians and female participants. This sample is larger than one recruited for a survey of four California public mental health hospitals by their psychiatric technician union (SEIU, 2011).

Procedures

Data were collected via an hour-long online survey from November to December 2011 and 10 randomly selected participants received $100 compensation through a lottery. Hospital

executive staff endorsed participation with a memorandum. This study was approved by a university institutional review board. Participation in the study was voluntary and participants reviewed a study information sheet.

Measures

Demographic and background information.—Participants reported their gender, race/ethnicity, and marital status.

Work histories.—Participants identified their current position, length of work experience (in years) in the hospital, and length of work experience in the field.

Health habits.—Participants were asked about their health behaviors using 5 items drawn from the 1981 National Health Leisure Time Survey (Wilsnack, Klassen, & Wilsnack, 1984). Detrimental health behaviors included the frequency and quantity of alcohol consumption (e.g., “How often do you drink any kind of alcoholic beverage (i.e., beer, wine, or liquor)?” Respondents who reported alcohol consumption were asked to estimate the typical number of drinks consumed on a single day. A drink was defined as a 4 oz. glass of wine, a 12 oz. beer, or 1 oz. of liquor. A count of caffeinated beverages consumed daily was also included. Beneficial health behaviors include the frequency of vigorous exercise (heart rate above 130 beats per minute: 1 = *never* to 8 = *daily*) and a general self-estimate of healthy eating habits (1= *not healthy at all* to 5 = *very healthy*). Beneficial health behaviors were reverse coded. All items were *z* scored and summed for a composite score of health habits. Higher scores indicating poorer health habits.

Experiences with physical assault.—Staff rated the frequency of physical assault from patients during the prior year using a 7-item measure with a 4-point Likert scale (0 = *never*, to 3 = *6 or more times*) developed for this study (Kelly, Subica, Fulginiti, Brekke, & Novaco, 2015). Assault was coded into two ways for analytic purposes, first as a dichotomous variable (0 = *not assaulted*, 1 = *assaulted*) and second as a scaled average of assault frequency.

Reactivity to assault.—Staff also rated how distressed they were by assault experiences with two items created for this study. Using a 5-point scale, staff rated how stressful it was for them, on average, when a patient assaulted or attempted to assault them (1 = *not stressful* to 5 = *overwhelming*). A mean score was calculated for inclusion as a covariate in analyses. The scale had good reliability (α = .80).

Social support after assault.—Staff were asked about support after a patient assault from 7 different sources (supervisor, coworker, family, friends, security staff, hospital administrators, or other). For each of the 7 possible sources of support, staff checked a box for 2 categories: 1) if support had been wanted, and 2) if received support had been effective. Since not all staff were assaulted, there was an option to select ‘not applicable’ for each category. Support after assault variables were included in three different ways. First, count variables of the number of sources that were (a) wanted and (b) effective were calculated. For regression analyses, support from supervisors and coworkers was grouped as work-

based support, and support from friends and family was grouped as non-work sources. Subsequently, support was dummy coded as no support, support from coworkers, support from supervisors, and support from coworkers and supervisors. “No support” was used as the reference group in the analyses.

Perceptions of safety.—Perceptions of workplace safety were rated using two items. First, staff were asked how unsafe they feel generally at work. Responses ranged from 1 = *very safe* to 5 = *very unsafe*. Staff were also asked to rate whether the hospital’s current safety procedures are effective at protecting their safety on a 4-point scale (1 = *well protected* to 4 = *unprotected*). As these items were on different scales, they were transformed into *z* scores and averaged to compose a safety index (Kelly et al., 2015), with higher scores indicating greater concerns. The scale had good reliability with this sample (α = .71).

Mental health symptoms.—The General Health Questionnaire-12 (GHQ-12) is a self-report measure that assesses depressed mood, lack of positive affect, somatic symptoms, and interpersonal difficulties (Goldberg & Williams, 1988). Mental health symptoms are assessed by six negative items (e.g., feeling unhappy or depressed) and six positive items (e.g., ability to face problems). Each item is rated on a 4-point scale, rating the frequency of symptoms during the previous few weeks (0 = *much less than usual* to 3 = *more so than usual*). Symptom scores were averaged for use in analyses. The GHQ-12 had acceptable internal reliability with this sample (α = .76).

Sleep quality.—An 8-item truncated version of the Pittsburgh Sleep Quality Index (PSQI) was used to estimate sleep quality (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989) along 6 components: subjective sleep quality, sleep latency (not complete scale), sleep duration, habitual sleep efficiency, use of sleeping medication, and daytime dysfunction. The PSQI sleep disturbances component was omitted. Participants rated the amount of sleep got (in hours), when they went to bed and woke up, and the presence of sleep disturbances (number of minutes needed to fall asleep). Additionally, participants rated on 4-point scales sleep quality (1= *very good* to 4 = *very bad*), how frequently they need to use sleep aids, how sleepy they were during the day (1 = *not during the past month* to 4 = *3 or more times a week*) in the past month. Each of the component’s scores are then combined and re-coded to form subscales, which range from 0–3 points-- a score of “0” indicates no difficulty, a score of “3” indicates severe difficulty. The six component scores are added to yield one “global” score, which had adequate reliability in this sample (α = .71). A score above 5 is considered poor sleep quality in the full scale (Buysee et al., 1989).

Anger.—Participants rated how often they have felt irritable or angry on a 4-point scale (1 = *never* to 4 = *everyday*). We used a single item scale in being cautious about self-representation concerns, which could be an issue for reporting anger in the workplace.

Physical health.—A 12-item somatization subscale from the Hopkins Symptom Checklist (HSCL) (Derogatis, Lipman, Rickela, Uhlenhuth, & Covi, 1974) was used to assess physical symptoms. Participants rated the frequency of perceptions of bodily dysfunction in the past month (1 = *not at all* to 4 = *extremely often*). Complaints range from cardiovascular (e.g., ‘Pains in the heart or chest’) and respiratory (e.g., ‘Trouble getting your breath’), to other

systems related to stress responses (e.g., 'Pains in your lower back'). An average total score was used in analyses and the alpha was good ($\alpha = .85$).

Data Analysis

The distributions of all variables were examined, and no transformations were required. Correlations between the main study variables were calculated. The analytic approach progressed in four steps. First, the frequencies and patterns of wanted and effective support were examined. We examined the rates of "wanting" support and "receiving" effective support in order to understand whether there was a gap between support wanted and support received. Second, Pearson correlations were used to examine the relationship between frequency of assault and staff well-being and perceptions of safety. Third, as we expected that work-based support would be more effective than non-work-based support, we selected coworkers, supervisors, friends and family for comparison, as they were the most frequent sources of support. These sources were coded into work-based (coworkers, supervisors) and non-work-based (friends, family) groups, and then four dichotomous variables were created for analyses (wanted work support, effective work support, wanted non-work support, effective non-work support). Demographic differences (gender, race/ethnicity, and years of experience) regarding whether staff wanted or received effective support from work-based or non-work-based sources were tested using Chi-square and independent group t-tests. Linear multiple regressions were used to test the associations of wanted support and effective support from work-based (coworkers and supervisors) and non-work-based (friends and family) sources with staff well-being and perceptions of safety. Finally, in order to test our hypothesis that coworkers are a more effective source of support than supervisors, the variables of effective support from supervisors, coworkers, or their combination were dummy coded. The reference group was those who did not receive support. Linear multiple regressions were used to test the associations of support from work-based sources (supervisor, coworker, or both together) with staff well-being and perceptions of safety. Multicollinearity was assessed by variance inflation factors (*VIF*) and tolerance, and both were within acceptable limits for all variables.

Results

Sample characteristics.

Personal and workplace characteristics of all respondents and assaulted staff are presented in Table 1. Assaulted respondents were predominately women (65%), and the sample was racially and ethnically diverse. Psychiatric technicians, senior psychiatric technicians, unit supervisors and nurses composed three-quarters of the sample. As the focus of the present study is on the support experiences of those who were assaulted, we limited the sample to staff who had been assaulted in the prior year.

Sample composition.

Assault was a common experience-- in the previous 12 months, 242 (69.5%) of the 348 staff who completed the study reported a physical assault incident. Two-hundred and thirty-five staff (67.5%) responded about support after assault, although 15.7% (n =37) of those respondents did not report an assault in the last year. Of the 242 who reported being

assaulted in the last year, 12.8% (n = 31) selected the 'not applicable' option for all sources of support. It is unclear why these 31 staff who were assaulted in the last year did not think that the support items were applicable to them. Since they did not include social support as relevant to their experience, we interpreted this to mean that they did not want or receive effective support, and they were re-coded as receiving zero sources of wanted or effective support. Staff who reported that they were not assaulted in the prior year were not included in subsequent analyses. The final sample was comprised of the 242 staff who reported an assault in the prior year and who responded about support after their assault(s).

Sources of support after assault.

Count variables of the number of sources of support wanted and effective were calculated. On average, staff wanted support from 2.77 sources (SD = 2.28) but received effective support from 1.88 (SD = 1.57). In a paired t-test comparing the number of wanted and effective sources, staff wanted significantly more sources of support than provided effective support, $t(241) = 7.54$, $p < .001$. Among the 242 staff who reported an assault in the last year, 71% wanted support, and 72% found effective support from at least one source, thus our hypothesis that most staff will want support and will find effective support was confirmed. The percentages of staff who wanted support or found effective support from each source are presented in Table 2.

The sources from whom staff most wanted support were coworkers, supervisors, and family. However, the most frequently effective source of support was coworkers, followed by family and friends. Supervisors were one of the most wanted sources of support (56%), but they provided effective support only half as often as did family or coworkers. Although about one-third of respondents wanted support from security staff and hospital administrators, the support provided from these sources was judged to be effective by less than 10% of our study sample.

Tests for demographic differences regarding support being wanted or being effective were adjusted for multiple comparisons using a Bonferroni correction. There were no significant differences as a function of gender or race/ethnicity, nor were there significant differences for years of experience.

Staff well-being and perceptions of safety.

Across the full sample, participants' GHQ-12 ratings were moderately low (M = 1.46, SD = .35), and only 5% reported very serious mental health concerns. Staff reported high levels of concern about their safety, as 54% of staff reported feeling 'unsafe' or 'very unsafe' at work. Moreover, 92% of staff thought that they could be more protected or were unprotected while at work. Sleep disturbances were prevalent, with 45% reporting serious sleep disturbances (scores > 5 on the PSQI). Most staff reported only occasional anger (63%), but 16% reported feeling anger "often" or "very often". The physical health of staff was overall good, as assessed by the somatization subscale of the HSCL, but 14% reported symptoms that occurred "often" or "very often". There were small to moderate correlations between these indices of well-being, ranging up to .52 for sleep disturbances and physical health (Table 3).

Relationships between patient assault and staff well-being/perceptions of safety.

The means, standard deviations, and Pearson correlations between main study variables are presented in Table 3. Staff with more assaults reported greater safety concerns ($r = .29$). There were no significant associations of assault frequency with the well-being indices (HSCL, PSQI, anger, and GHQ-12). Reactivity due to assault had small correlations with safety concerns and physical health symptoms.

Social support sources and staff well-being/perceptions of safety.

Linear multiple regression, with all predictors entered, was used to compare the associations of work-based and non-work-based support with staff perceptions of safety and well-being (HSCL, PSQI, anger, and GHQ-12). Sources of support were coded dichotomously (0 = *no effective/wanted support* and 1 = *effective/wanted support*). We limited work-based variables to supervisors and coworkers, since they are the proximate in the workplace and because receipt of effective support was low for administrators, security staff, and "other" sources. All regression analyses controlled for gender, years of experience at the hospital, having a ward-based position, and the number of assaults in the prior year. The selection of control variables was based upon prior research (Kelly et al., 2015; Kelly et al. 2016).

Table 4 presents the regression analyses results. Wanting support from work sources was not associated with the well-being and safety criteria, having controlled for the covariates. Effective support from work-based sources was associated with significantly lower concerns about safety ($\beta = -.29$), fewer physical health symptoms ($\beta = -.21$), less sleep disturbance ($\beta = -.22$), and fewer depressive symptoms ($\beta = -.17$). There was only one significant relationship between wanting support and staff wellbeing: Wanting support from non-work sources was significantly associated with more safety concerns ($\beta = .22$). Effective support from non-work sources is not significantly associated with any criterion. There were no significant relationships between these support variables and anger.

Supervisor and coworker effective support: Alone and together.

Given that only work-based sources of effective support were significantly associated with well-being and perceptions of safety, and since there were differences in the rates of supervisor and coworker support, we examined if supervisor and coworker support might be differentially related to study outcomes. Table 5 presents the multiple regressions that tested the associations of the staff well-being and perceptions of safety criteria with effective support from (1) coworkers alone; (2) supervisors alone, and (3) both coworkers and supervisors, using those who did not receive any effective support as the comparison group. We chose those who did not receive any effective support as the control group, in order to evaluate whether there were detectable benefits associated with receiving effective support. All regression analyses controlled for gender, years of experience at the hospital, having a ward-based position, health habits, number of assaults in the prior year, and reactivity to assault.

Effective support from coworkers alone was significantly associated with lower safety concerns ($\beta = -.14$), fewer health symptoms ($\beta = -.15$), and less sleep disturbance ($\beta = -.22$). In contrast, effective support from supervisors alone was not significantly associated

with any staff outcomes. Finally, effective support from both coworkers and supervisors was significantly associated with lower safety concerns – i.e., they felt more safe and protected (β = −.24), fewer physical health symptoms (β = −.17), less anger (β = −.24), and fewer depressive symptoms (β = −.23), compared to not having received any effective support from coworkers and supervisors.

Discussion

Managing the impact of patient assault is vital for protecting the well-being of staff in psychiatric settings. Comparable to other studies in California and elsewhere (SEIU, 2011; Spector et al., 2014), the staff in this study experienced a high rate of patient assault and also reported a high level of safety concerns. We pursued the topic of social support because it is intuitively and empirically known to be an important affordance in response to trauma, particularly regarding the person's psychological processing of the event's meaning and managing the resultant psychological distress (Ozer et al., 2003). Encouragingly, the present study's results indicate that most staff want social support and do find effective social support from someone after being assaulted in their hospital work. However, our study findings also indicate gaps and discrepancies in support that warrant attention.

Gaps in support.

Overall, 28% of staff did not find effective support from any source post-assault. This is higher than the 16% rate of dissatisfaction with support (work-based sources) that Whittington and Wykes (1992) found on their third interview two weeks after assault. There were large gaps between the desire for support -- from hospital administrators, supervisors, and security staff -- and the receipt of effective support from these sources. Coworkers provided effective support about half the time, and close to the rate that it was wanted from them. Supervisors offered support more often than did administrators or security staff, which is to be expected, but the perceived effectiveness of supervisor support was half the rate of what was wanted.

The gap between wanted and effective support may be due to many factors. Assaulted staff may be reluctant to seek desired supervisory support due to concerns that they may appear to be less prepared for job demands, that the support was unnecessary or would be ineffective, or that it will not prevent future assaults (Chambers, 1998; Spencer & Munch, 2003; Lanza et al., 2011). Some supervisory staff may feel unprepared to offer support after assault, and support programs, such as critical incident stress debriefing, have not been consistently validated for their effectiveness (Jacobowitz, 2013). It is also possible that some staff may not seek support from workplace colleagues due to low quality relationships. In our previous work (Kelly et al., 2016), conflicts with other staff members was significantly associated with staff well-being impairments across multiple indices. This suggests that staff who experience a great deal of conflict with their colleagues may be more reluctant to seek support from them.

An unexpected finding was that staff wanted support from security staff, but did not receive it. This may reflect a disconnect between clinical and security staff, who are not generally allowed on the wards. It is unclear what form of support clinical staff desire from security

staff. They may want more security staff to be available, a more rapid response to incidents, more effective alert systems, better training on the management of high-risk patients, validation of their handling of assault incidents, and/or reassurance of future protection. This merits further research exploration.

Support after assault and well-being.

There was no evidence in this study that support from family and/or friends, whether wanting it or having it be judged to be effective, was related to staff well-being. It was only with regard to safety concerns (feeling unsafe and feeling unprotected) that there was a significant association with support from family/friends, and that was only for wanting support from them. The more staff were concerned about their safety, the more they wanted support from family and friends. However, while receiving effective support from family and friends was not significantly associated with lower safety concerns, receiving effective support from work-based sources was. Regarding the well-being measures, it was effective support from work-based sources that was related to better well-being. In view of this pattern of findings pertaining to non-work-based sources, the development of resources or trainings for family members might be an objective for future interventions. Family counseling is a component of the Assaulted Staff Action Program (Flannery et al., 2006; Flannery et al., 2011), with which reduced assaults have been associated, but that program has not yet been evaluated in a randomized control trial.

Conjoined support from supervisors and coworkers was generally associated with better well-being, as indexed by the physical health, depression, and anger measures, as well as safety concerns. Effective support from coworkers alone was associated with lower safety concerns, physical health problems, and sleep disturbances, in comparison to those who did not receive work-based support. Staff who are disconnected from effective support appear to suffer costs to their mental health. They may not be offered support because others are unaware of their needs, they may be suppressing their reactions to assault, or they may feel uncomfortable with support from workplace colleagues and supervisors. In a previous study with this sample (Kelly et al., 2016), we found that staff who were assaulted frequently, but who reported little reactivity to assault, were more depressed and angry than were those with fewer assault incidents. Perhaps those staff who are disconnected from support have given up on receiving it after multiple assaults or feel numb to assault due to trauma. These staff might be thought to be marginalized, burnt out, or traumatized. By examining different sources of staff support and perceived effectiveness of support received, our findings offer insights into who might best connect with struggling staff following assault events.

Implications for psychiatric facilities.

Patient assault is a well-recognized issue within healthcare, but few interventions concerning patient violence and the traumatic aftermath of assault have been robustly evaluated (Farrell & Cubbitt, 2005; Wassell, 2009). Assault prevention and the management of assaultive patients are program interventions in virtually all psychiatric hospitals. However, in the Farrell and Cubit (2005) review, only 13 of 28 aggression management programs (in their Table 3) addressed debriefing after assault. This may reflect concerns that debriefing may cause more harm than benefit, as a Cochrane systemic review found that for those who

receive only one session of debriefing it can be ineffective or potentially harmful for psychological distress or PTSD (Rose, Bisson, Churchill, & Wessely, 2002). A multi-faceted survey by Peek-Asa et al. (2009) of acute psychiatric hospitals and facilities, 53 in California and 30 in New Jersey, found that training about resources available for victims occurred in 76.5% of programs in the California sample and 57.1% of those in New Jersey. Indeed, compared to all other training program components (e.g., identification of predicting factors, methods to diffuse aggressive behavior, and restraint techniques) availability of resources for victims had the lowest percentage of inclusion. This may reflect a reluctance among staff to attend formal work-based support groups after assault – e.g., a study of 57 previously assaulted nurses found that only 47% reported that they would attend a work-based support group if it was available (Moylan, McManus, Cullinan, & Persico, 2016). However, 76% also reported wanting more information about support groups if they were available, which could imply that more staff would take advantage of these groups if they were routinely offered.

Violence against mental health professionals should not be viewed as an occupational hazard to which staff must accommodate. To be sure, the base rate for hospital staff violence victimization is high, but more can be done to attenuate the adverse impacts of assault incidents, including enhancement of social support resources supplied by psychiatric unit teams and their managers. The results of the present study, as has previous research, indicate that coworkers and supervisors are deemed to be important support providers and that support from them after assault is significantly associated with less psychological distress and physical health problems, as well as a greater sense of safety.

Staff who are isolated from social support at work may need encouragement to accept assistance through formal or informal programs, as might be inferred from our findings that they have a higher level of depression, which can entail withdrawal and demoralization. That is reflected in GHQ-12 item endorsements of not playing a useful part in things, losing confidence, not being able to concentrate, and thinking of oneself as a worthless person. Staff who are disinclined to seek social support for assault through work-based sources may respond to other forms of assistance, such as access to counseling, encouragement of self-care, and opportunities to engage in wellness activities within the workplace (Lanza, 1992; Levin et al., 1998). Future studies might seek to identify those who are not inclined to garner workplace social support after assault, learn about the nature of such reservations, and inquire about what alternative resources hospital management could provide that would be most useful to them.

Diversity.

The present study’s sample included staff from diverse backgrounds in terms of their positions, race/ethnicity, and experience. In previous research with this sample (Kelly et al., 2015), we found that male staff and those who were stationed on the ward were more likely to report having been physically assaulted than were female staff or those in clinical or supervisory positions. However, there was no significant evidence in this study that wanting support or receipt of effective support from either work-based or non-work-based sources differed by gender, race/ethnicity, or years of experience.

Limitations.

This study has a number of limitations. First, it is cross-sectional, so causality cannot be inferred. Second, there was no data link between specific incidences of assault and the support provided afterwards; therefore, the importance of the frequency, severity, and temporal distance between assault experiences and support is unclear. In addition, other variables, such as assault severity, may influence how and when social support is provided. Supervisors and administrators might only provide support in cases where a physical injury occurred, whereas support from coworkers is more accessible and be given regardless of assault severity. Future studies with longitudinal designs and more extensive assessment of assault experiences, perhaps by qualitative interview methodology, are needed to address these issues. Third, the measure of the desire for and the effectiveness of social support was dichotomous. This was done to allow for evaluation of a larger range of support sources than is typical in social support measures, while also respecting the response burden for participants. Future studies should investigate the degree of wanting a source of support and the degree that support was effective from each source. Although our overall response rate was 19%, our sample is larger than was used in a survey of multiple California public mental health hospitals (SEIU, 2011) and is representative of clinical positions at the hospital (Kelly et al., 2016). Our sample is from a long-term forensic hospital, and sources of support may operate differently in other kinds of treatment settings. Since the focus of this study was on sources of support rather than types of support (i.e., formal interventions versus informal interactions, emotional versus instrumental support), future research should explore how different types of post-assault support might differentially bear on staff well-being.

Conclusion.

Creating a culture of safety and support is critical to the well-being and protection of staff. Hospital managers can foster a supportive culture by modeling cooperation, prosocial behavior, and teamwork, and by encouraging check-ins after assault, even from those not involved in direct care. Given that inpatient psychiatric commitment is often predicated upon being a risk to self or others, staff cannot be protected from every incident of assault. Risk can be minimized by helping staff not only to feel prepared to manage violent situations but also by providing supportive resources that facilitate staff recovery after assault. How to involve family members, either as auxiliary agents of support and/or as secondary victims of patient assaults, would seem to be a potentially valuable line of inquiry.

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Table 1

Personnel and Workplace Sample Descriptive Statistics of the Full Sample and Assaulted Staff

		Full Sample		Assaulted Sample	
Variables		***N***	***%***	***N***	***%***
Gender					
	Female	239	69%	158	65%
	Male	108	31%	83	34%
Race / ethnicity					
	Caucasian	130	37%	84	35%
	Hispanic	72	21%	45	19%
	African American	73	21%	54	22%
	Asian American	39	11%	34	14%
	Mixed race / Other	34	10%	25	10%
Relationship status					
	Married / In a relationship	239	70%	171	71%
	Not in a relationship	102	30%	67	28%
Positions					
	Ward staff	231	69%	183	76%
	Clinical staff	91	27%	52	21%
	Supervisory staff	12	4%	6	3%

***Note*:** *Ward staff* = psychiatric technicians, senior psychiatric technicians, unit supervisors, and registered nurses, *Clinical care staff* = rehabilitation therapists, psychologists, social workers, and psychiatrists, and *Supervisory staff* = administrative supervisors, clinical supervisors.

Table 2

Percentages of Support Wanted and Effective after Patient Assault by Source

	Wanted Total		Effective Total	
Source	**N**	**%**	**N**	**%**
Supervisor	136	56%	65	27%
Coworker	140	58%	126	52%
Hospital Administrator	95	39%	11	5%
Friend	91	38%	100	41%
Family Member	115	48%	123	51%
Security Staff	79	33%	20	8%
Other	14	6%	10	4%

Note: Percentages in the columns reflect the 242 respondents who reported about sources of assault and were assaulted in the last year.

Table 3

Descriptives and Correlations of Study Variables

Variable Name	*M*	*SD*	*Range*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Years employed in hospital	9.93	7.06	(0.10–37.00)								
2. Health habits	−0.05	0.55	(-1.27–1.68)	.02							
3. Patient assault frequency	0.54	0.45	(.13–2.75)	.06	.00						
4. Reactivity to assault	2.50	1.30	(0.00–4.00)	.11	.02	.33**					
5. Safety z score	0.12	0.85	(-2.97–1.67)	.05	.06	.29**	.27**				
6. Physical health	1.61	0.43	(1.00–3.42)	.04	.09	.17	.22*	.27**			
7. Sleep disturbances	5.62	3.39	(1.00–15.50)	−.07	.18*	.03	.09	.17	.52**		
8. Angry/Irritable	2.01	0.70	(1.00–4.00)	.00	.15	−.05	.01	.18*	.43**	.28**	
9. Mental health symptoms	1.46	0.35	(1.00–3.42)	.11	.15	−.05	.08	.06	.33**	.35**	.38**

Note. M = Mean. *SD* = Standard Deviation.

* $p < .01$.

** $p < .001$.

Health habits index includes a z-scored index of diet, exercise, alcohol and caffeine consumption. Patient assault frequency = Scaled frequency of assault index created for this study. Reaction intensity to assault = Two items of distress severity due to assault incidents. Safety z-score = Two-item scale written for this study with higher scores indicating less safety. Depression symptoms = General Health Questionnaire-12. Sleep Quality = Pittsburgh Sleep Quality Index. Angry/Irritable = One item frequency of feeling angry/irritable. Physical health symptoms = Hopkins Symptom Checklist. As an item in the GHQ-12 pertains to sleep, that item was dropped from the GHQ-12 for the correlation between sleep quality and the GHQ-12.

Table 4

Linear multiple regressions of sources of support wanted and effective from work (supervisors and coworkers) and non-work (family and friends) sources with indices of well-being

	Safety				Physical health				Sleep disturbances				Angry/ irritable				Mental health			
Variables	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***
Gender[a]	.19	.11	.11	.079	**.21**	.06	**.23**	.001	**1.53**	.47	**.22**	.001	.04	.10	.03	.662	**.13**	.05	**.17**	.012
Experience	.00	.01	.02	.714	.00	.00	.02	.799	−.04	.03	−.08	.224	.00	.01	.02	.784	.01	.00	.10	.135
Ward staff[b]	.20	.13	.10	.128	.09	.07	.09	.205	.90	.56	.11	.110	−.12	.12	−.07	.308	−.05	.06	−.06	.377
Health habits	.08	.09	.05	.413	.07	.05	.09	.159	**1.12**	.41	**.18**	.007	**.18**	.09	**.14**	.044	**.10**	.04	**.16**	.018
Patient assault frequency	**.35**	.13	**.19**	.005	.07	.07	.07	.311	−.21	.53	−.03	.693	−.05	.11	−.03	.643	−.04	.06	−.06	.428
Reactivity to assault	**.12**	.05	**.19**	.010	**.06**	.03	**.18**	.019	.15	.20	.06	.450	.05	.04	.09	.293	.04	.02	.15	.052
Support from work sources																				
Support wanted	.13	.15	.07	.402	.04	.09	.05	.623	.42	.68	.06	.534	−.07	.14	−.05	.651	.08	.07	.11	.262
Support effective	**−.50**	.13	**−.29**	<.001	**−.21**	.07	**−.24**	.004	**−1.51**	.56	**−.22**	.007	−.22	.12	−.16	.070	**−.12**	.06	**−.17**	.039
Support from non-work sources																				
Support wanted	**.38**	.15	**.22**	.011	.01	.08	.01	.896	.82	64	.12	.199	−.16	.14	−.12	.236	−.03	.07	−.04	.702
Support effective	−.13	.15	−.08	.367	.08	.08	.10	.286	.44	.63	.06	.487	.22	.13	.16	.094	−.05	.07	−.07	.453
Adjusted R^2	R^2 = .17				R^2 = .10				R^2 = .09				R^2 = .03				R^2 = .06			
Model Fit	$F(10,220) = 5.76$, $p<.001$				$F(10,208) = 3.53$, $p = .004$				$F(10,207) = 3.21$, $p = .001$				$F(10,215) = 1.66$, $p = .092$				$F(10,207) = 2.43$, $p = .009$			

Note:

[a] *Gender* = Women are coded as 1, Men are coded as 0.

[b] *Ward staff* = psychiatric technicians, senior psychiatric technicians, unit supervisors, and registered nurses are coded as 1, Non-Ward staff = rehabilitation therapists, psychologists, social workers, and psychiatrists, administrative supervisors, and clinical supervisors are coded as 0.

All support variables are dummy coded. *Assault Frequency* = Frequency of physical assaults by patients using measure created for this study. *Safety* = Written for this study. *Mental Health* = Number of mental health symptoms as measured by the General Health Questionnaire-12. *Sleep Disturbances* = Severity of sleep issues as measured the Pittsburgh Sleep Quality Index. *Angry/irritable* = Written for this study. *Physical health symptoms* = Hopkins Symptom Checklist.

Table 5

Linear multiple regressions of sources of effective support from supervisors and coworkers, coworkers alone, and supervisors alone compared to those who received no support with indices of well-being

		Safety				Physical health				Sleep disturbances				Angry/ irritable				Mental health			
Model	**Variables**	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***	**B**	**SE(b)**	**β**	***p***	**b**	**SE(b)**	**β**	***p***
	Gender[a]	.14	.11	.08	.213	**.21**	.06	**.23**	.001	**1.46**	.47	**.21**	.002	.02	.10	.02	.812	**.10**	.05	**.14**	.041
	Experience	.00	.01	.04	.573	.00	.00	.02	.706	−.03	.03	−.07	.326	.00	.01	.02	.746	.01	.00	.11	.092
	Ward staff[b]	.24	.13	.12	.065	.10	.07	.10	.149	1.02	.56	.13	.069	−.14	.12	−.09	.225	−.05	.06	−.06	.388
	Health habits	.05	.10	.03	.605	.07	.05	.09	.160	**1.24**	.42	**.20**	.003	.17	.09	.13	.052	**.10**	.04	**.15**	.026
	Patient assault frequency	**.40**	.13	**.21**	.002	.07	.07	.08	.280	−.16	.53	−.02	.764	−.04	.11	−.03	.733	−.03	.06	−.04	.568
	Reactivity to assault	**.15**	.05	**.22**	.001	**.07**	.03	**.22**	.002	.28	.19	.11	.148	.04	.04	.08	.294	**.04**	.02	**.15**	.046
	Work-based support[c]																				
	Support from coworkers and supervisors	**−.48**	.14	**−.24**	.001	**−.17**	.08	**−.17**	.024	−.46	.61	−.06	.449	**−.39**	.13	**−.24**	.002	−.199	.06	**−.23**	.002
	Support from coworkers alone	**−.25**	.13	**−.14**	.046	**−.14**	.07	**−15**	.045	**−1.13**	.54	**−.15**	.039	−.17	.11	−.11	.128	−.09	.06	−.12	.111
	Support from supervisors alone	−.17	.27	−.04	.533	−.11	.14	−.05	.434	.05	1.12	.00	.967	.34	.23	.10	.142	.08	.12	.05	.472
	Adjusted R^2	R^2 =.15				R^2 =.10				R^2 =.08				R^2 =.06				R^2 =.09			
	Model Fit	$F(9,221) = 5.39$, $p < .001$				$F(9,218) = 3.64$, $p < .001$				$F(9,217) = 3.03$, $p = .002$				$F(9,215) = 2.64$, $p = .007$				$F(9,217) = 3.281$, $p = .001$			

Note:

[a] *Gender* = Women are coded as 1, Men are coded as 0.

[b] *Ward staff* = psychiatric technicians, senior psychiatric technicians, unit supervisors, and registered nurses are coded as 1, Non-Ward staff = rehabilitation therapists, psychologists, social workers, and psychiatrists, administrative supervisors, and clinical supervisors are coded as 0.

[c] The comparison group are those who did not receive effective support.

Assault Frequency = Frequency of physical assaults by patients using measure created for this study. *Safety* = Written for this study. *Mental health* = Number of mental health symptoms as measured by the General Health Questionnaire-12. *Sleep Disturbances* = Severity of sleep issues as measured the Pittsburgh Sleep Quality Index. *Angry/irritable* = Written for this study. *Physical health symptoms* = Hopkins Symptom Checklist.