Third-party aggression and emotion work among nurses: testing a moderated mediation model.

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Abstract

Client aggression is increasingly a stressor in the workplace. This study aims to analyze how and why these experiences may trigger burnout. Focusing on healthcare workers, we tested a moderated mediation model of the relationship between exposure to third-party (patients and/or relatives) verbal aggression and burnout with the goal of assessing the mediation effects of emotion work and the moderating effects of personal resources (i.e., perceived self-efficacy in communication with patients) and job resources (job control, role clarity, social support by colleagues and by supervisors) on this relationship. A purposive sample of 356 nurses was recruited from four hospitals in northern Italy. A structured, self-report questionnaire was used to collect data. Mediated and moderated mediation regression models with PROCESS were used to test the hypotheses. As postulated, emotion work mediated the relationship between patient third-party aggression and nurses' burnout. Role clarity and supervisors' support were found to reduce the harmful effects of emotion work triggered by third-party aggression. Unexpectedly, perceived self-efficacy in communication did not have a buffering effect in the tested model. These results offer a novel approach to designing preventive actions aimed at cultivating resources to counter the impact of perceived exposure to client aggression on well-being.

Keywords: Workplace aggression; emotion work; self-efficacy; job resources; burnout; nurses

Workplace aggression is a growing stressor in various environments (Milczarek, Schneider, & González, 2010). The healthcare sector has reported the highest percentage of workers who are subjected to aggressive behavior, which is inflicted more frequently by patients and/or their relatives (so-called third-party aggression) than by coworkers (colleagues or supervisors) (Spector, Zhou, & Che, 2014). The increase in this type of aggression can be explained by several factors, such as less deferential attitudes toward professional authority and greater ease of accessing information about health decrease patients' and their relatives' deference to healthcare staff (Tousijn & Vicarelli, 2006). Moreover, budget cuts in the healthcare sector have worsened some working conditions that impact the interactions of health staff and patients, such as understaffing and longer wait times. These conditions result in an increased risk of patient-to-worker aggression in hospitals (Centers for Disease Control and Prevention/NIOSH, 2002; Arnetz et al., 2015; Magnavita, 2014) because patients and their relatives may feel that their needs are not met in suitable ways and at appropriate times.

Research on third-party aggression has mainly focused on its incidence and prevalence in different healthcare sectors as well as on its impacts on staff well-being (e.g., burnout, depression) and performance (e.g., increased absenteeism and turnover) (for a review, see Lanctot & Guay 2014). However, the mechanisms by which experiences of this type of workplace aggression influence employees' well-being have not been studied in sufficient depth (Koopmann, Wang, Liu, & Song, 2015). Some studies have analyzed the management of emotions as a mechanism to explain the relationship between emotionally charged interactions and employee burnout (Bakker & Heuven, 2006; Zapf & Holz, 2006; Sliter, Jex, Wolford, & McInnerne, 2010). Clients' aggressive behavior is an emotion-provoking event; interacting with angry and abusive patients (or their relatives) provokes intense (and, above all, negative) emotions in victims, such as anger and fear (Diefendorff,

Richard, & Yang, 2008). Healthcare workers are not often in a position to express these negative emotions when they feel them. For instance, if they react angrily to patients' anger, they could trigger an escalation that interrupts the care relationship. Therefore, healthcare workers must make an effort to manage their emotions (e.g., by suppressing, neutralizing, or altering them) to express them in a professionally appropriate way during interactions with clients. The seminal conceptualization of emotion management in workplaces was developed by the sociologist Hochschild (1983), who coined the term *emotional labor* (EL). Under this umbrella term, two streams of research have been developed (Giardini & Frese, 2006). The first stream conceptualizes EL as emotion regulation (e.g., Grandey, 2000). Its focus is the strategies used to display emotions to comply with organizational rules (i.e., how employees regulate their emotions for organizational purposes). The second research stream conceptualizes EL as *emotion work* (EW; Zapf et al. 2001; Zapf, 2002, Zapf & Holz, 2006). Its focus is the perceived emotional requirements of a job (e.g., the perceived requirement of controlling the expression of felt emotions) and the psychological state associated with these requirements (the discrepancy that is experienced between what one feels and what one should express, also known as emotion-rule dissonance). Recent models (Grandey & Gabriel, 2015; Holman, Martinez-Iñigo, & Totterdell, 2008) integrate these streams and conceptualize EL as a process. From this perspective, the perception of emotional requirements (e.g., emotion control) and the experience of emotion-rule dissonance are the first steps of the EL process. First, when employees experience a variety of emotions, they evaluate whether the situation requires high self-control to display these emotions appropriately. Employees can experience a discrepancy between their felt emotions and the emotions that are required by display rules (emotion-rule dissonance). Then, when they perceive emotion-rule dissonance, employees may respond by attempting to regulate their emotional behaviors through various emotion regulation strategies to reduce the discrepancy, such as surface or deep acting

(Dieffendorff & Gosserand, 2003; Holman et al., 2008). In the EL literature, several studies have focused on the effects of emotion regulation strategies in response to mistreatment by patients (e.g., Grandey et al., 2012; Goussinski & Livne, 2016; Sliter et al., 2010). In our study, we focus on EW rather than on emotion regulation strategies to promote a more nuanced understanding of the relationships among exposure to client aggression, psychological states that are required to comply with organizational/professional emotional display rules, and burnout. The relationship between EW and burnout is not clear, and the available evidence is inconsistent (Hülsheger & Schewe, 2011). Some studies have shown that EW can generate emotional exhaustion (EE), depersonalization (DP), and psychological strain (e.g., Mann & Cowburn, 2005). Other studies have found that EW has positive effects on well-being because it can also lead to rewards, such as client satisfaction, which can increase employee satisfaction (Donoso, Demerouti, Hernández, Moreno-Jimènz, & Cobo, 2015; Humphrey, Ashforth, & Diefendorff, 2015). According to Grandey and Melloy (2017), these mixed effects may depend on the availability of personal and/or situational resources to cope with the EL process. However, questions remain unanswered regarding which situational and personal resources can protect employee well-being when EW is specifically triggered by client verbal aggression.

The first aim of our study is to examine whether EW mediates the relationship between third-party verbal aggression and employee burnout in healthcare settings. The second aim is to determine whether the relationship between third-party aggression and nurse burnout, mediated by EW, can be shaped by personal resources (perceived self-efficacy in communication with patients) and job resources (job control, role clarity, and social support from both colleagues and supervisors). In our study, we adopt the job demands-resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) as an overarching conceptual framework to predict the relationships among a specific type of job demand (i.e.,

third-party verbal aggression), personal and job resources, and outcomes (i.e., burnout). Within this framework, we empirically test the role of EW as a psychological mechanism that explains why a specific job demand triggers the health impairment process that leads to burnout and when resources have a buffering effect within this pathway.

Our study aims to contribute to both the literature on workplace aggression and the literature on EL. Regarding workplace aggression, first, we add knowledge to studies that have analyzed the role of EW in the client aggression-burnout relationship by specifically exploring the hospital setting. Second, we offer a more complete picture of the buffering factors against outcomes that are provoked by the aggression of patients and/or their relatives. Thus far, most studies have analyzed either the moderators in the relationship between client aggression and well-being (e.g., Karatepe, Yorganci, & Haktanir, 2009) or the moderators between EW and well-being (e.g., Mauno, Ruokolainen, Kinnunen, & De Bloom, 2016). Our study adds knowledge because we propose a unifying model to understand the resources that mitigate the client aggression-burnout relationship that is mediated by EW. Third, we advance understanding of the moderating role of a specific personal resource, perceived self-efficacy in communicating with patients, which, to the best of our knowledge, has not previously been tested. This specific form of self-efficacy has been considered a key component of healthcare staff professionalism and has resulted in protections against work-related distress (Emold, Schneider, Meller, & Yagil, 2011). We contribute to this knowledge by assessing whether this personal resource moderates the relationships among perceived client aggression, EW and burnout. We also contribute to the EL process literature by focusing on a specific antecedent of EW (i.e., verbal aggression by clients) and by analyzing EW as a mediator. In the next section of the paper, we discuss the theoretical model (Figure 1) and the hypotheses that we intend to verify.

(Figure 1 about here)

Hypothesis Development

Workplace aggression and burnout

The European Agency for Safety and Health at Work (Milczarek et al., 2010) introduced the concept of "third-party violence" to refer to threats, physical violence, and psychological violence (e.g., verbal aggression) by third parties such as customers, clients, or patients who receive goods or services. Verbal aggression includes offensive language, derogatory comments, yelling and cursing. In our research, we focused on verbal aggression from patients and/or their relatives toward nurses because verbal abuse has been found to be the most frequently encountered experience of aggression across most areas of the healthcare environment, and more nurses than physicians are exposed to this form or aggression (Edwards, Ousey, Warelow, & Lui, 2014). Several studies have shown that employees who perceive themselves to be highly exposed to clients' verbal aggression show higher work burnout than employees who feel that they have little exposure to such experiences (Yagil, 2008). Burnout is defined as a psychological syndrome that is experienced in response to chronic job demands. It is characterized by the three components of EE, DP and a lack of personal accomplishment (Leiter & Maslach, 2004). In our study, we analyzed two of these three dimensions of burnout, namely, EE and DP. EE refers to a person's feeling that he or she has exhausted all of the psycho-physical energy needed to complete work tasks. DP refers to the tendency to treat clients like objects and to become indifferent and apathetic toward them. A lack of personal accomplishment is excluded based on Leiter's (1993) model, which suggests that this dimension is a reaction to different aspects of the work environment compared with EE and DP. Specifically, EE and DP are more strongly related to job demands (e.g., workplace aggression), while the feeling of a lack of personal accomplishment is insensitive to job demands and is more strongly related to job resources.

The JD-R model offers a lens to explain how clients' aggression can lead to EE and DP. This model states that EE and DP result from a process of resource depletion caused by high job demands, which are defined as "those physical, psychological, social or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p. 312). The model assumes that when job demands are high, additional resources must be mobilized to achieve task goals. Encounters with hostile clients are considered to be a job demand that requires strong consumption of personal resources at various levels (Koopmann et al., 2015). At the cognitive level, for example, nurses must invest extra energy to complete a task (e.g., more attentional energy, additional problem-solving skills) and to meet their professional goals. At the emotional level, nurses may perceive a threat to valued personal resources (e.g., their self-esteem and self-efficacy) that provokes a strong state of emotional and physiological arousal (e.g., anger). A chronic level of this state can drain employees' energy (Grandey, Dickter & Sin, 2004). Moreover, the negative emotions that are elicited by interactions with hostile patients and relatives can require a high degree of employees' self-control to express organizationally desired emotions, which can exhaust employees physically and mentally (Dollard, Dormann, Boyd, Winefield, & Winefield, 2003). DP emerges because the feeling of losing energy can lead employees to adopt a cynical attitude as a self-protective strategy to prevent further energy depletion. We further discuss the specific role of EW as an explanatory mechanism for the relationship between client verbal aggression and burnout in the next subsection.

Empirical evidence suggests that this type of stressor has energy-depleting properties in various workplaces, with EE and DP as the result (Ben-Zur & Yagil, 2005; Grandey, Kern, & Frone, 2007). Following this reasoning and evidence, we propose the following:

H1: Perceived exposure to aggressive behaviors from patients and their relatives is positively related to EE (H1a) and DP (H1b).

The Mediating Role of Emotion Work

The emotional component of nursing has been well known for many years. As suggested in several studies (Mann, 2005; McQueen, 2004), nurses are aware of the centrality of the emotional requirements (i.e., EW) of their job. They must cope with pain and death, and these situations trigger a large number of spontaneous emotions (e.g., compassion, sadness, hope) whose management is often automatic and therefore is perceived as effortless. Although nurses can sometimes enjoy the advantages of EW (Donoso et al., 2015), what happens when patients or their relatives become angry and show aggression through offensive words, personal attacks and sarcastic comments about nurses' professionalism? Lanctôt and Guay (2014) showed that anger, sadness, fear, and disgust were frequently mentioned by victims of workplace verbal aggression in the healthcare sector. Nurses may perceive that the natural display of these negative emotions is unsuitable for their job role; therefore, they must make a sustained, volitional effort to manage their emotions appropriately.

In our study, following Zapf et al. (2001), we consider EW part of intentional and goal-oriented behavior. We define this concept as perceived emotional requirements and the psychological states that are associated with them. Our explanation of the mediating role of EW requirements is consistent with the JD-R model. As stated previously, the JD-R model assumes that job demands can activate a resource-drain process that can lead to burnout (Bakker & Demerouti, 2007). The resource-drain process that is associated with interactions with aggressive clients (patients and/or relatives) may be due to the psycho-physical costs of EW requirements (i.e., emotional dissonance and self-control). It can be assumed that interacting with aggressive patients and relatives provokes emotional dissonance because the

negative emotions that are triggered by these interactions can be appraised as inconsistent with the interiorized role of healthcare workers as sympathetic and empathetic professionals. This dissonance generates a state of tension because nurses experience a person-role conflict (Andela, Truchot & van der Doef, 2016): on the one hand, they must hide what they feel to avoid the risk of violating their professional goals; on the other hand, if they express emotions that are deemed appropriate, they may feel that they are behaving inauthentically. If this state of tension persists, nurses' energy can be exhausted. Moreover, frequent exposure to hostile behaviors may deplete the resource of self-control. Self-control involves resisting the temptation to perform one action (e.g., to react violently) and forcing oneself to continue working (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Nurses may feel that overly intense negative emotions (e.g., anger) reduce their ability to properly care for a patient; therefore, they must exert stronger, deliberate control over themselves, their emotions and their emotional responses. When mistreatment is frequent, the resource of self-control is overtaxed. Because self-control reserves are limited (Baumeister et al., 1998), the depletion of these resources exhausts employees physically and mentally (Dollard et al., 2003).

Some evidence has confirmed a direct association between client aggression and employee EW (Goussinsky, 2011) as well as between EW and employee well-being (Zapf et al. 2001; Lewig & Dollard, 2003; Mauno et al., 2016). Moreover, EW (e.g., emotional dissonance) mediates the relationship between customer aggression and employee burnout in various contexts (e.g., call-center workers: Molino et al., 2016; engineers: Adams & Webster, 2013).

According to this reasoning and evidence, we hypothesize the following:

H2: EW mediates the relationship between exposure to verbally aggressive behavior from patients/their relatives and EE (H2a) and DP (H2b).

Personal and Job Resources as Moderators

Adopting the buffer hypothesis of the JD-R model, we aimed to examine which conditions can protect nurses' well-being when they experience client mistreatment and EW. In our study, we focused on context-specific personal and job resources, specifically, a personal resource that characterizes the professional role of nurses (perceived self-efficacy in communicating with patients) and four job resources that are considered core components of the quality of working life in the healthcare sector (HSE-Health and Safety Executive, 1999) (i.e., role clarity; job control; support from colleagues and support from supervisors). In our model, we propose that these resources play a role as moderators in the direct (see path "c" in Figure 1) and/or indirect effects of third-party verbal aggression on burnout (EE and DP) via emotion work, including path "a" (third-party verbal aggression-EW) and path "b" (EW-burnout).

With regard to personal resources, self-efficacy in communicating with patients refers to healthcare professionals' beliefs about their ability to successfully handle problematic situations that relate to communicating with patients (Capone & Petrillo, 2011). This ability includes questioning skills (e.g., the ability to ask questions and to embrace patients' point of view), prompts and cue skills (e.g., the ability to identify the clues given by patients), active listening skills (e.g., using silence, leaving time for other people to talk), and talking skills (e.g., using understandable and clear language with no technical terms). Because proper communication can contribute to a high-quality relationship with clients, healthcare professionals' belief that they have these skills can increase their sense of professional fulfillment and simultaneously reduce their EE and DP. To our knowledge, there are no studies to date on the protective function of this specific self-efficacy in the presence of aggressive behaviors by patients or their relatives. A few studies have considered other types of self-efficacy. Heuven, Bakker, Schaufeli, and Huisman (2006) focused on emotion work-related self-efficacy. They demonstrated that among flight attendants, emotional dissonance

was related to emotional demands (i.e., emotionally charged interactions and feeling rules) only for individuals with low levels of EW-related self-efficacy. Moreover, emotional dissonance weakened work engagement only for individuals with low levels of EW-related self-efficacy, while no moderating effects were found with respect to EE. Xanthopoulou, Bakker, and Fischbach (2013) conducted a longitudinal study with 163 employees from an electronics company and focused on general self-efficacy. They showed that the relationships among emotional demands, emotion-rule dissonance, and work engagement were more negative when general self-efficacy was low.

We expect that perceived self-efficacy in communicating with patients moderates the direct and indirect relationships between third-party verbal aggression and burnout (EE and DP) via EW. Our expectation is based on the following reasoning. People with strong beliefs in their own efficacy tend to perceive difficulties as challenges, not as threats, and tend to adopt problem-focused strategies (Bandura, 1997). Moreover, they approach situations with a reduced level of anxiety because they feel well equipped to manage these situations. These perceptions have protective effects on their personal well-being. In contrast, people with low self-efficacy are more likely to become anxious when facing tasks, to become disoriented and to be unable to think or act in an analytical way. Therefore, it is likely that nurses who perceive themselves as able to manage communication with patients consider verbal attacks from patients (and, as an extension, from patients' relatives) as challenges and feel calmer. Consequently, their emotional arousal is less intense. In this way, this personal resource can protect against the depletion of emotional energy and attenuate the direct relationship between experienced client verbal aggression and burnout (path "c"). Moreover, we propose that the relationship between client verbal aggression and EW (path "a) becomes weaker for nurses with higher perceived self-efficacy because their emotional overload is reduced. Feeling well equipped to handle an event prevents the generation of negative emotions or

reduces the intensity of felt negative emotions. For this reason, the drain of the resource of self-control and the state of tension due to emotion-rule dissonance may be reduced. Lastly, we propose that the negative effect of EW on burnout is weaker for nurses with higher perceived self-efficacy than for nurses with low self-efficacy in communicating because those with higher self-efficacy may experience EW demands as more consistent with their professional values. Indeed, professionals who are more confident in communicating are likely better able to understand the deep emotions (e.g., worry, pain, and panic) that trigger verbal attacks by patients or their relatives. In this way, self-control may be perceived not as a form of alienation from their real professional selves but as a way to fully express their own professional identity. In contrast, this resource may be further taxed among nurses who perceive themselves as not very capable of handling communication with patients because the effort that is required to control their negative emotions and emotional dissonance is amplified by disorientation and by the feeling of losing control of the situation. Consequently, nurses with a high perception of self-efficacy in communication with patients may suffer less from burnout than nurses who have low self-efficacy when they experience a high level of EW that is caused by verbal aggression from patients and their relatives.

Therefore, we formulate the following hypotheses:

H3: Self-efficacy moderates the positive association between verbal aggression and EW; this relation is weaker for nurses with higher perceived self-efficacy.

H4 a/b: Self-efficacy moderates the positive association between EW and EE (H4a) and DP (H4b); these relations are weaker for nurses with higher perceived self-efficacy.

H5 a/b: Self-efficacy moderates the positive association of third-party verbal aggression to EE (H5a) and to DP (H5b); these relations are weaker for nurses with higher perceived self-efficacy.

Regarding job resources (job control; role clarity; support from colleagues; support from supervisors), studies inspired by the JD-R model have demonstrated the protective role of these resources in the relationship between job demands and employee well-being. Job control refers to the extent to which a person is autonomous in task-related decisions (e.g., timing and method control). Empirical evidence supports its moderating role in the direct relationship between customer verbal aggression and employee well-being (Xanthopoulou et al., 2007). Role clarity is defined as the degree to which individuals have clear expectations about their responsibilities, tasks, and objectives because they do not have conflicting job requirements (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Some researchers have highlighted its direct effects on well-being and its moderating effects on the relationship between job demands and psycho-physical strain (Albrecht, 2012; Lang, Thomas, Bliese, & Adler, 2007). The dimension of support includes the presence of support and encouragement from colleagues and supervisors. Some empirical studies have shown the buffering effects of social support in the direct relationship between aggression and burnout with regard to home care (Xanthopoulou et al., 2007), nurses and nurse aides (Viotti, Gilardi, Guglielmetti, & Converso, 2015), librarians (Martini, Viotti, Converso, Battaglia, & Loera, 2018) and bank operators (Karatepe et al., 2009).

We expect that the indirect relationship between verbal aggression from patients and their relatives and nurse burnout via EW may be shaped by these job resources. For example, employees' awareness that they are working with people who are willing to support them in difficult situations (for example, the perceived possibility of asking a colleague to take over when a situation is escalating) may decrease the intensity of negative emotions (e.g., fear) and, consequently, the extent of EW (path "a"). Moreover, social support may allow employees to voice their genuine emotions after an aggressive interaction, which protects the resource of self-control and simultaneously nurtures another resource, the need for

belongingness. Consequently, the relationship between EW and burnout may become weaker (path “b”). Supporting evidence is provided by Ortiz-Bonnín, Garcia-Buades, Caballer and Zapf (2016), who studied a sample of front-line employees in Spanish hotels and restaurants. Employees who worked in teams with a low supportive climate were more vulnerable to emotion-rule dissonance than employees who worked in teams with a highly supportive climate. Client verbal aggression may also be more weakly linked to EW in situations of greater job autonomy and role clarity because in these two conditions, workers may experience less dissonance. The self-control requirement may be experienced as consistent with their values and professional identity; therefore, acts of self-control drain less energy. Moreover, they may not feel forced to follow rules that they do not agree with, and the fact that they are not forced or pushed may diminish the perceived threat to their identity and authenticity. Supporting evidence is provided by Warthon (1993), who found that workers who were employed in the banking and hospital industries and who performed EW under conditions of low job autonomy and low job involvement were more likely to suffer burnout.

According to the aforementioned reasoning, we hypothesize the following:

H6: Each resource moderates the positive association between verbal aggression and EW; this relation is weaker when these resources are higher.

H7 a/b: Each job resource moderates the positive association of EW to EE (H7a) and to DP (H7b); these relations are weaker when these resources are higher.

H8 a/b: Each resource moderates the positive association of verbal aggression to EE (H8a) and to DP (H8b); these relations are weaker when these resources are higher.

Method

Participants

Data were collected during a multicenter intervention study performed in 4 general-purpose hospitals from 2014-2015. The hospitals were medium-sized urban hospitals serving

a large metropolitan area in northwest Italy. A total of 356 (49% response rate) healthcare professionals (nurses and nurse midwives) completed the surveys. We tested for differences on two demographic (gender and age) and one work-related variable (average tenure) among the four hospitals and we found no significant differences: gender χ^2 (3, N=355) = 3.382, *p* .350; age $F(3, 351) = 1.051$, $p = .370$; tenure $F(3, 351) = 1.734$, $p = .160$.

In terms of demographic features, the respondents were mostly female (88%), were married or living with partners (62%), and had children (74%), and their mean age was 44.32 years (SD = 9.41). In terms of work-related variables, 88% of the respondents had a full-time job, with an average tenure of 18.31 years (SD = 11.88). They worked in four departments (outpatient clinic 29%; emergency department 11%; mental health 23%; midwifery pediatricians 37%).

Data Collection

The research conforms to the provisions of the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000), and all ethical guidelines required for conducting human research were followed, including adherence to the legal requirements of the study country (Italy). Hospital administrations evaluated, endorsed, and authorized the research and allowed the researchers to use the data for scientific purposes. The participants were informed about the study by the Nursing Director. Their managers volunteered for the research and were not asked to sign consent forms; completing the questionnaire implied their consent. The cover sheet clearly explained the research aim, the voluntary nature of participation, the anonymity of the data, and the processing of the findings.

Additional ethical approval was not required because the study involved no medically invasive diagnostics or procedures that caused psychological or social discomfort for the participants, and patients were not the subjects of the data collection.

Measures

Third-party Verbal Aggression: Five items from the Customer-Related Social Stressors (CSS) inventory (Dormann & Zapf, 2004) were used to measure third-party verbal aggression (e.g., "They get angry at us even over minor matters") (α = .93; four-point Likert scale from 1 = "never" to 4 = "always").

EW was measured using an adapted version of the emotional job demands subscale of the Demand-Induced Strain Compensation questionnaire (DISQ 2.1, Italian validation, Bova, de Jonge & Guglielmi, 2015) (4 items; α. = 62; five-point Likert scale from 0 = "never" to 4 = "always"; e.g., "I have to display emotions towards patients and/or relatives that are inconsistent with my current feelings"). The item that relates to patient aggression was excluded ("I have to deal with patients and/or relatives who get easily angered towards me") because in our study, we considered this event (i.e., dealing with aggressive clients) the job demand that stimulates efforts due to the perceived emotional requirements and associated psychological states (such as emotion-rule dissonance and self-control).

Communication Self-efficacy: The Nurse's Communication Perceived Self-Efficacy Scale (Capone & Petrillo, 2011) was used to measure nurses' beliefs about their capability to successfully manage problematic situations that relate to communication with patients (8 items; α = .89; five-point Likert scale from 1 = "not at all" to 5 = "totally"; e.g., "How much do you feel able to encourage a patient to express her/his emotions?").

Job resources were measured by the scales of the *HSE Indicator Tool* (Edwards, Webster, Laar, & Easton, 2008; Italian validation: Toderi, et al., 2013) (five-point Likert scale from 1 = "never" to 5 = "always") as follows: a) *Job Control* (6 items; α =.78) measures how much say a person has in the way that he/she performs his/her work (e.g., "I have a choice in deciding how I do my work"); b) *Role Clarity* (5 items; α = .83) measures whether employees understand their job role and whether their employer ensures that they do not have conflicting roles (e.g., "I understand how my work fits into the overall aim of the organization"); c)

Social Support from Colleagues (4 items; α = .81) measures colleagues' encouragement and support at work (e.g., "If work gets difficult, my colleagues will help me); and d) *Social Support from Supervisors* (5 items; α = .84) measures the encouragement, sponsorship and resources that are provided by line managers (e.g., "I can talk to my line manager about something that has upset or annoyed me about work").

Burnout was measured using two subscales from the Italian version of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986; Loera, Converso & Viotti, 2014), namely, EE (8 items, e.g., "I feel emotionally drained from my work") and DP (5 items, e.g., "I feel I treat some patients as if they were impersonal objects"). Both subscales demonstrated good internal consistency (α_{EE} = .87; α_{DP} = .92). The responses were given on a seven-point scale ranging from 0 = "never" to 6 = "every day".

Strategy for the Data Analyses

Before testing our hypotheses, we examined the factorial structure of our measures using AMOS 20. The hypothesized nine-factor model, which considered the major study variables (i.e., verbal aggression, EW, EE, DP, communication sel efficacy, control, role clarity, and support from colleagues and supervisors) as distinct factors, showed acceptable fit with the data (χ^2 = 1,930.37, *p*=.0001, df = 1,044, χ^2/df = 1.84, RMSEA = .05 [.04-.05], SRMR = .06); moreover, all items significantly loaded on their corresponding factor. The nine-factor model fit the data significantly better than any alternative model, including the one-factor model in which all items loaded on a single latent factor (χ^2 = 6,522.64, *p*=.0001, df = 1,080, χ^2/df = 6.03, RMSEA = .11 [.11-.12], SRMR = .13).

Descriptive data analyses were conducted with SPSS 25. Pearson correlations were used to examine the interrelationships among the variables. We preliminarily checked for the effects of one demographic variable (gender) and two work-related variables (tenure in

healthcare settings, which also functions as a good proxy for age, and department). However, following recent recommendations (see Bernerth & Aguinis, 2016 for a review; Becker, 2005; Carlson & Wu, 2012), we decided to exclude all of these variables from further analyses to avoid generating biased estimates.

The mediation and moderated mediation models were analyzed using PROCESS Version 3 (Hayes, 2018), which was developed by Preacher and Hayes (2004) for SPSS. The bias-corrected 95% confidence interval (CI) was calculated with 5,000 bootstrapping resamples. First, we tested (Model 4) whether the association between verbal aggression and burnout was mediated by EW. If the 95% CI of the indirect effect (path a* b) did not contain 0, this indicated that the mediating effect was significant. Next, Model 59 was used to examine the moderated mediation effect, that is, whether personal resources and job resources moderated the direct and indirect effects of aggression on burnout. We applied the Johnson-Neyman technique (or the region of significance approach; Hayes, 2013) to identify the conditional values that define the region of significance on the moderator and determine the range of the moderator within which the simple slope from the focal predictor to the outcome is significantly different from zero. Thus, the study variables were mean-centered.

Results

Descriptive Statistics

Information on the descriptive statistics, scale reliabilities, and correlations among the variables is reported in Table 1. All significant correlations among the variables were in the expected directions. Third-party verbal aggression was positively related to both outcomes (EE r = .27; DP r = .35) and EW (r = .33) but not to communication self-efficacy (r = .04). The same correlation pattern was shown for EW, which had positive correlations with both outcomes (EE r = .32; DP r = .32) and no correlation with communication self-efficacy (r =

.04). Furthermore, communication self-efficacy was negatively associated only with EE (r = -.13).

Insert Table 1 here

Mediation Test

We tested the predictions concerning the link between third-party verbal aggression and burnout (EE and DP) and the predictions concerning the role of EW as a mediator. As shown in Table 2, we found a significant relationship between verbal aggression and both burnout measures, which confirmed H1a and H1b. The results of the mediation analyses showed that the total effect (path "c") of verbal aggression on both burnout dimensions was significant (EE B = .247, p <.001; DP B = .263, p <.001). The significant coefficient of path "a" (B = −.328, p <.001) and path "b" (EE B = 0.245, p <.001; DP B = .242, p <0.001) indicated positive associations of verbal aggression with EW and of EW with burnout. The point estimate of the indirect effect (path a * b) between verbal aggression and burnout through EW was .081 (SE = .02) for EE and .080 (SE = .02) for DP. The 95% bias-corrected bootstrap CI was from .0392 to .1295 for EE and from .0392 to .1293 for DP, which indicated that the indirect effect of verbal aggression on burnout was statistically significant. In addition, the direct effect of verbal aggression on burnout (path c' EE = .167, p <.003; DP = .268, p <.001) was significant, which indicated that EW partially mediated the relationship between verbal aggression and burnout.

Insert Table 2 here

Moderated Mediation Test

The results of the moderated mediation are related to the conditional indirect effects, which are presented in Table 3.

Insert Table 3 here

Hypotheses H3 and H6 are not confirmed because none of the personal and job resources moderate the relationship between verbal aggression and EW. H4 (a and b) and H5 are not confirmed because communication self-efficacy does not play a role in moderating the direct effect (verbal aggression-burnout) or the indirect effect between EW and burnout. H7 (a and b) is partially confirmed because role clarity and support from supervisors moderate the relationship between EW and burnout, while job control and support from colleagues do not moderate this relationship. Nevertheless, role clarity (H7a) may function as a moderator in the direct effect on DP.

The Johnson-Neyman technique, which indicates the values of the moderators at which an association transitions from not significant to statistically significant, showed that the relationship between EW and EE was positive and significant when role clarity and support from supervisors were low and medium but was nonsignificant when these moderators were high (role clarity value of .782, 78.36% below; support from supervisors value of .8665, 76.02% below). Similarly, the relationship between EW and DP was positive and significant when role clarity and support from supervisors were low or equal to their mean but was nonsignificant when these moderators were high (role clarity value of .674, 65.49% below; support from supervisors value of .915, 81.87% below). Finally, the relationship between verbal aggression and DP (through EW) was positive and significant when role clarity was low or equal to its mean but was nonsignificant when this moderator was high (role clarity value of 1.189, 88.01% below).

Discussion

In our study, we tested a moderated mediation model in which EW mediated the relationship between third-party verbal aggression perceived by healthcare workers and their burnout (EE and DP) and, at the same time, one personal (i.e., perceived self-efficacy in

communication with patients) and four job resources moderated this mediated relationship. Our results contribute to the understanding of the conditional process through which perceived exposure to verbal aggression from patients and/or their relatives can affect nurses' burnout through EW.

First, we found that perceived exposure to verbal aggression from patients and/or their relatives had a direct positive association with burnout (EE and DP) and that EW partially mediated this positive association. Consistent with previous studies on other professional groups (Adams & Webster, 2013; Bakker & Heuven 2006; Giardini & Frese, 2006; Molino et al., 2016), healthcare workers' efforts to manage their emotions that are specifically triggered by clients' verbal aggression can activate a resource-depleting process, which leads to EE and, at a relational level, the adoption of a DP strategy. These results confirm and extend the JD-R model by showing a specific mechanism that can help to explain the health impairment process triggered by this job demand. In accordance with other studies that focused on emotion regulation strategies (Grandey, Foo, Groth, & Goodwin, 2012) or on emotional dissonance (Molino et al., 2016), the mediation of EW was partial. Consequently, other mechanisms might affect the well-being of nurses who experience verbal aggression from patients and relatives (e.g., cognitive overload or a perception of injustice), and future research should more deeply examine these relationships. These findings contribute to the literature on EL because they provide an explanation of contradictory results regarding the association between EW and burnout. It is possible that the mixed results that are recorded in this literature, specifically concerning healthcare professionals, are linked to the *source* of EW that is considered. Several distressing situations that relate to relationships with patients have been analyzed within the nursing literature (for example, caring for terminally ill patients), and many of these relational experiences were found to trigger EW without negative consequences. For example, when analyzing the relationship with patients in

general, Hayward and Tuckey (2011) did not find a link between EW and burnout. They hypothesized that this was possibly because nurses use their EW in an adaptive way to achieve their work targets. Our results show that it may be more difficult to activate this adaptive modality when nurses frequently deal with verbally aggressive patients or their relatives. Our study suggests that to better understand the costs and benefits of EW, the specific triggering event and the discrete emotions that are activated by such an event should be considered.

Second, our study contributes to the research on the potential moderators of the relationship among perceived client aggression, EW, and burnout. In line with the buffer hypothesis of the JD-R model, we expected that a job demand such as third-party verbal aggression would increase burnout, but some job resources would buffer its negative impact on healthcare workers' well-being. We contribute to this theoretical framework by studying the point in this job demand-EW-burnout pathway at which the considered resources act as buffers. The findings showed that moderation by two resources (i.e., role clarity and supervisor support) occurred in the relation between EW and burnout but not in the relation between third-party verbal aggression and EW. Moreover, we found that role clarity moderated the association between third-party aggression and DP. It seems that nurses with higher role clarity do not need to adopt DP as a coping strategy. These findings are interesting because they contribute to an understanding of how healthcare workers' well-being can be protected when they experience patient/relative verbal aggression. These resources do not seem to protect victims of client aggression against the experience of EW, but role clarity and supervisor support can protect them against burnout when they experience high EW. Interestingly, our results did not confirm self-efficacy in communicating with patients as a personal resource when the triggering event was client verbal aggression. A possible explanation for this unexpected result could be due to the type of self-efficacy that we

considered. Perceived self-efficacy in communicating is a cognitive ability that may be effective in nurturing a sense of mastery, but it may be ineffective in protecting against the intimate negative emotions that are produced by an emotion-provoking event. Moreover, we considered perceived self-efficacy in communicating with patients. However, it is possible that this does not have an effect when aggressive behaviors come from relatives because it may be more difficult to empathize with relatives than with patients. For this reason, the capability of communicating with patients may not protect against the overload due to the perceived emotional requirements that are triggered by relatives.

Finally, our research offers new insight into certain job characteristics that are traditionally considered job resources against work stressors. Of the four job resources considered, two had protective effects—specifically, one resource at the interpersonal level (social support from supervisors) and one resource related to job content (role clarity). The EW demands resulted in enhanced emotional exhaustion and depersonalization only for individuals with low role clarity and low support from supervisors. For individuals who were very focused on their role and well supported by supervisors, there was no relationship between EW and burnout. The result regarding supervisor social support is consistent with several studies that have emphasized its protective function (Korczynski, 2003; Goussinsky & Livne, 2016). This finding can be explained by the fact that being able to share their experiences concerning abusive and irate patients with their supervisors and receiving emotional support or guidelines about how to behave can help nurses recover from the tensions associated with the EW demands in their daily work. In accordance with the few studies that have considered role clarity regarding patients' verbal aggression (Viotti et al., 2015), the buffer effect of role clarity is confirmed. It is plausible that these individuals perceive organizational aims, scopes and rules as clear, meaningful, and not contradictory. In these circumstances, the requirement to remain calm when facing an aggressive patient can

be perceived as coherent with nurses' need to achieve their own primary aims. In this way, the tension that is created by emotion-rule dissonance can be reduced. In contrast, within the examined context, job control (i.e., decision latitude) did not have a buffering effect independently of its level. This result conflicts with some traditional theories in the field of occupational health (e.g., the Job Demand-Control model, the Job Characteristics model) but is consistent with some studies in the healthcare context (Guglielmetti, Gilardi, Accorsi, & Converso, 2014; Goussinsky & Livne, 2018). One explanation may relate to the efforts that are required by job autonomy. High levels of decisional discretion can have negative effects on affective well-being because they imply an increase in responsibility and the undertaking of risks (Warr, 1990). Consequently, the fear of failure and the sense of being alone when facing complex situations can increase. These negative feelings can require further efforts in self-control and, therefore, a consumption of energy that adds to the energy that is required to handle the negative emotions triggered by clients' verbal aggression. Another explanation may be found in the way in which we measured job control. The adopted measurement referred to nurses' autonomy level in regulating their own work (e.g., freedom to decide how to organize work, what to do and how quickly to perform it) but did not specifically reference freedom in regulating the expression of their own emotions.

Our study has some limitations. The most relevant limitation is the cross-sectional design, which means that the direction of the causal relationships among verbal aggression, EW and burnout can only be determined theoretically. However, some theoretical and longitudinal studies confirm the postulated relationships (Magnavita, 2013; Zapf et al., 1999). Another limitation is that all employed measures were self-reported. Future studies may benefit from employing research designs that include a combination of objective (e.g., objective health indicators) and subjective measures or data from multiple sources (e.g., employees and patients). Moreover, we assessed perceived self-efficacy in communication

with patients rather than effective skills because our interest was in the well-being outcome. However, our results do not allow any inference on the role played by the effective capacity to handle communication. Further studies should include measurements based on skills to assess their protective role. The use of a nonrandomized sample may be another limiting factor of this study. Therefore, caution should be exercised when generalizing the results to other nursing populations of the Italian health sector. However, the relatively high response rate (49%) and the absence of significant differences between the study sample and the target population suggest that no selection bias regarding gender, age, or job seniority affected our results. Finally, we considered certain aspects of EW demands, but we did not consider how employees regulate their negative emotions (i.e., emotion regulation strategies). The literature on EL has indicated that there may be different consequences on well-being depending on the adopted strategies (Hülsheger & Schewe, 2011). Future studies could benefit from considering the mediating and moderating effects in different parts of the EL process. Lastly, the reliability of the adopted EW scale in our study can be considered to be low, although it is still within acceptable limits (DeVellis, 1991) and similar values have been considered acceptable in other papers (e.g., Bakker & Heuven, 2006; Bozionelos, & Kiamou, 2008). In future research, it would be worthwhile to select a more reliable scale.

These results have implications for both healthcare professionals' higher education programs and hospital management. To protect healthcare workers who face third-party aggression from the risk of burnout, our findings suggest that beyond developing communicative skills toward patients, which is promoted in most university training programs for nurses, programs should aim to develop a greater awareness of EW demands and capabilities to effectively manage the emotional conflicts that are triggered by aggressive clients, including patients as well as their relatives.

At the managerial level, our study emphasizes that improving role clarity and promoting the quality of leadership within work teams may represent an effective prevention strategy to buffer the negative impact of third-party verbal aggression. Specifically, the effort that is required to handle emotions and emotional conflicts is not simply an individual task that relies on the operator's personal resources. Supportive communities in which awareness of individual targets and overall targets is promoted can help nurses to positively manage the EW that is demanded by client aggression.

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Table 1
Descriptive Statistics, Alpha Coefficients, and Correlations

Variable (acronym)	Mean (ds)	α	2	3	4	5	6	7	8	9
1.Verbal aggression (VA)	1.86 (,81)	.93	.331 *p* <.001	.044 *p* = .421	-.119 *p* = .028	-.022 *p* = .682	-.055 *p* = .310	.018 *p* = .740	.267 *p* <.001	.353 *p* <.001
2.Emotion work. (EW)	3.10 (.94)	.62	-	.043 *p* = .422	.031 *p* = .563	-.086 *p* = .104	-.143 *p* = .007	-.182 *p* = .001	.324 *p* <.001	.321 *p* <.001
3.Comm.selfeff (CSE)	3.55 (.75)	.89		-	.199 *p* <.001	.247 *p* <.001	.095 *p* = .077	.045 *p* = .404	-.131 *p* = .028	-.079 *p* = .372
4.Control (C)	3.29 (.45)	.78			-	.184 *p* <.001	.244 *p* <.001	.182 *p* = .001	-.232 *p* <.001	-.116 *p* = .025
5.Role clarity (RC)	3.23 (.44)	.83				-	.266 *p* <.001	.393 *p* <.001	-.304 *p* <.001	-.277 *p* <.001
6.Social support from colleagues (SSC)	3.81 (.77)	.81					-	.384 *p* <.001	-.297 *p* <.001	-.178 *p* = .003
7.Social support from supervisors (SSS)	3.65 (.44)	.84						-	-.272 *p* <.001	-.200 *p* <.001
8.Emotional Exhaust. (EE)	2.74 (1.48)	.87							-	.489 *p* <.001
9.Depersonalization (DP)	8.65 (4.37)	.92								-

Table 2

Simple mediation results [a]

Predictors	Model 1		Model 2 Burnout			
	Emotion work B(SE) *p* value		EE B(SE)[b] *p* value		DP B(SE)[b] *p* value	
Independent variable						
Verbal aggression	. **328** (.05) *p* <.001		.**247** (05) *p* <.001		. **263** (.05) *p* <.001	
Emotion work	-		.**245** (05) *p* <.001		.**242** (.05) *p* <.001	
R^2	0.12 *p* <.001		0.11 *p* <.001		0.18 *p* <.001	
Bootstrap indirect effects on burnout (through emotion work)[c]	B(SE)		LL 95% CI	UL 95% CI		
	EE	DP	EE		DP	
Verbal aggression	.081 (.02) *p* <.001	.080 (.02) *p* <.001	.0392	.1295	.0392	.1293

Note. LL= lower limit; CI= confidence interval; UL = upper limit. [a] n = 342; unstandardized regression coefficients are reported: standard errors in parentheses. [b] Direct and total effects. [c] Bootstrap sample size= 5000. Significant B values are bold.

Table 3
Moderated mediation results (n=342)

Outcome EW															
Resources / Predictor	Comm. Self Eff. CSE			Control C			Role Clarity RC B (LLCI ULCI)			Supp. From coll. SSC B (LLCI ULCI)			Supp. From Sup. SSS B (LLCI ULCI)		
	B	LLCI	ULCI	B	LLCI	ULCI	B	LLCI	ULCI	B	LLCI	ULCI	B	LLCI	ULCI
Verbal Aggr. (VA)	**.30** *p* < .001	.2022	.4018	**.33** *p* < .001	.2313	.4310	**.33** *p* < .001	.2319	.0984	**.32** *p* < .001	.2260	.4240	**.33** *p* < .001	.2353	.4302
Resource	.01 *p* = 763	-.0856	.1167	.07 *p* = 169	-.0300	.1703	**-.09** *p* = .048	-.1982	-.0007	-.10 *p* =.052	-.2004	.0010	**-.16** *p* =.001	-.2584	-.0655
VA x resource	.05 *p* =.288	-.0450	.1505	-.05 *p* =.245	-.1384	.0355	-.05 *p* = .216	-.1500	.0340	.02 *p* = 625	-.0745	.1238	-.04 *p* = 318	-.1308	.0427
R^2	0.10 *p* < .001			0.12 *p* < .001			0.13 *p* < .001			0.12 *p* < .001			0.14 *p* < .001		
F	**13.10** *p* < .001			**15.27** *p* < .001			**16.26** *p* < .001			**15.65** *p* < .001			**18.92** *p* < .001		

Outcome Burnout										
Resources / Predictor	Comm. Self Eff. CSE		Control C		Role Clarity RC		Supp. From coll. SSC		Supp. From Sup. SSS	
	EE B *p* value (LLCI; ULCI)	DP B *p* value (LLCI; ULCI)	EE B *p* value (LLCI; ULCI)	DP B *p* value (LLCI; ULCI)	EE B *p* value (LLCI; ULCI)	DP B *p* value (LLCI; ULCI)	EE B *p* value (LLCI; ULCI)	DP B *p* value (LLCI; ULCI)	EE B *p* value (LLCI; ULCI)	DP B *p* value (LLCI; ULCI)
Verbal Aggr. (VA)	**.18** *p* = .001 (.0731; .2866)	**.27** *p* < .001 (.1710; .3711)	**.14** *p* = .009 (.0356; .2445)	**.25** *p* < .001 (.1503; .3551)	**.16** *p* = .003 (.0542; .2572)	**.27** *p* < .001 (.1738; .3641)	**.16** *p* = .003 (.0538; .2571)	**.26** *p* < .001 (.1566; .3557)	**.17** *p* = .001 (.0699; .2772)	**.27** *p* < .001 (.1744; .3729)
Emotion Work (EW)	**.24** *p* < .001 (.1325; .3519)	**.24** *p* < .001 (.1368; .3425)	**.26** *p* < .001 (.1597; .3706)	**.25** *p* < .001 (.1423; .3490)	**.23** *p* < .001 (.1261; .3338)	**.22** *p* < .001 (.1266; .3212)	**.23** *p* < .001 (.1249; .3341)	**.24** *p* < .001 (.1368; .3417)	**.22** *p* = .001 (.1093; .3233)	**.22** *p* < .001 (.1153; .3211)
Resource	**-.14** *p* = .008 (-.2416; -.0365)	-.08 *p* = .087 (-.1799; .0124)	**-.23** *p* < .001 (-.3263; -.1282)	-.09 *p* = .086 (-.1822; .0120)	**-.29** *p* < .001 (-.3865; -.1955)	**-.24** *p* < .001 (-.3272; -.1482)	**-.27** *p* < .001 (-.3696; -.1729)	**-.15** *p* = .003 (-.2440; -.0513)	**-.22** *p* < .001 (-.3215; -.1272)	**-.16** *p* = .001 (-.2552; -.0691)
VA x resource	-.00 *p* = .970 (-.1080; .1040)	-.00 *p* = .970 (-.1012; .0975)	.05 *p* = .240 (-.0366; .1455)	-.02 *p* = .635 (-.1108; .0677)	.05 *p* = .291 (-.0458; 1522)	**-.11** *p* = .018 (-.2046; -.0190)	-.04 *p* = .473 (-.1448; .0674)	-.09 *p* = .097 (-.1918; .0161)	.02 *p* = .697 (-.0769; .1148)	-.07 *p* = . 143 (-.1602; .0233)
EW x resource	-.05 *p* = .427 (-.1592; .0677)	.02 *p* = .719 (-.0869; .1258)	.00 *p* = .938 (-.0989; .0914)	-.02 *p* = .604 (-.1179; .0687)	**-.14** *p* = .001 (-.2411; -.0332)	**-.17** *p* = .001 (-.2667; -.0719)	-.09 *p* = .101 (-.1977; .0177)	-.07 *p* = 176 (-.1781; .0328)	**-.10** *p* = .039 (-.2026; -.0053)	**-.10** *p* = .031 (-.1985; -.0097)
R^2	0.13	0.18	0.17	0.19	0.21	0.30	0.20	0.22	0.18	0.24
F	**9.97**	**15.12**	**13.42**	**15.39**	**18.10**	**28.39**	**16.40**	**18.59**	**14.75**	**20.84**

	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$

Note. Unstandardized regression coefficients are reported: Bootstrap sample size= 5000 (two-tailed test) significant values are bold.

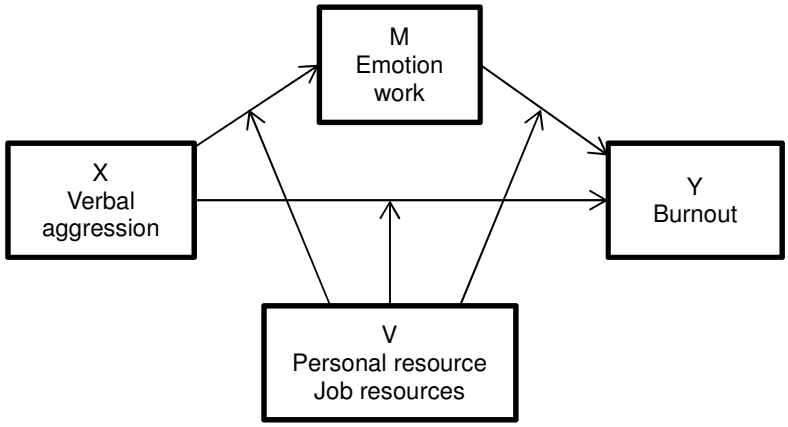

Figure 1. Proposed moderated mediation model.