The Development of Client Violence Questionnaire (CVQ)

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Abstract

The purpose of this study was to develop, test, and validate a questionnaire for assessing social workers' exposure to client violence, which we call the Client Violence Questionnaire (CVQ). Following established procedures for scale development, four distinct stages of research were conducted, combining qualitative and quantitative methods. The contribution of this study is threefold—methodological, conceptual, and practical. The instrument offers practitioners and academic researchers the opportunity to apply the scale both for internal monitoring and knowledge sharing as well as further research. The development process of the CVQ scale demonstrates how the qualitative method can serve as a distinct research stage and at the same time support and enhance the quantitative one, thus contributing to the validity and applicability of the instrument.

Keywords

The phenomenon of client aggression and violence toward social workers has been documented in various parts of the world (e.g., Jayaratne, Croxton, & Mattison, 2004; Koritsas, Coles, & Boyle, 2010; Kosny & Eakin, 2008; Littlechild, 2005; Macdonald & Sirotich, 2005; Virkki, 2008). Professionals in human service occupations are being increasingly subjected to client-perpetrated violence (Koritsas et al., 2010; Virkki, 2008). Violence can take many forms, which include verbal abuse, threats, intimidation, actual physical attacks, and sexual or racial abuse (Harris & Leather, 2011). Wynne, Clarkin, Cox, and Griffiths (1997) suggest a broad definition of workplace violence that includes any incident or behavior in which people are abused, threatened, or assaulted in circumstances related to their work and that result in explicit or implicit threat to their safety, well-being, or health.

No organization is an island. The organization and its members affect the context in which they operate and are affected by it (Johns, 2006). Violence against service providers always occurs within a specific context. Studying client violence requires a measure that will make it

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possible to compare various contexts and contextual variables. Despite the frequency of client violence, its negative effects, and the need for effective prevention policy (Sarkisian & Portwood, 2003), the measurement instruments used to study this subject were developed either for specific contexts or other types and contexts of violence, or both (e.g., Gately & Stabb, 2005; Ringstad, 2005). Therefore, the goal of this study was to develop a behavior-based instrument that could be used to compare between different types of workplaces, services (health, tourism), sectors (public, private), and occupations (social workers, nurses, bank workers, hotel personnel). In the current study, we have developed and validated the instrument for one specific population: social workers.

Theoretical Background

Social workers are particularly exposed to client violence (Harris & Leather, 2011). However, the levels of exposure are not uniform across different types of social work. According to Jayaratne et al. (2004), social workers in public and nonprofit agencies are at higher risk for client violence than social workers in private practice. Indeed, mental health and child welfare workers' exposure to violence was reported as especially high (Scalera, 1995; Shields & Kiser, 2003). Winstanley and Hales (2008) found that residential social workers are particularly at high risk for client violence. Balloch, Pahl, and McLean (1998) presented contradictory findings of lower risk among home care workers. In Israel, most client violence toward social workers between the years 1998 and 2011 involved requests for financial support (Ministry of Social Affairs and Social Services [Israel], 2012). In 2002, almost 200 cases of client violence toward social workers were reported and an additional 50% are estimated as having never been reported. The most frequent type of aggression was verbal, followed by property damage and physical aggression (Levi, Sarig & Rubin-Shlager, 2004).

The reasons for social workers' exposure to client violence emanate from the omnibus nature of the context (Johns, 2006), including the nature of the profession and discrete aspects of the context, including task-related factors (the worker) and the social diversity of the clients. First, the profession involves daily interaction with voluntary and involuntary clients who are asked to discuss private, often sensitive topics (Shields & Kiser, 2003). The delivery of social services itself is risk related because it is tied to social control, for example, the authority to deny resources, usually because of lack of eligibility, may provoke aggression (Newhill, 1995). Second, the clients of social service agencies must often cope with high levels of frustration and many unmet needs (Shields & Kiser, 2003). Clients who exhibit poor judgment or lack of impulse control, or those whose history includes substance abuse or violent behavior, or clients with access to weapons were found as more prone to act violently (Shields & Kiser, 2003). In mental health settings, clients with acute psychosis or personality disorders were also found more prone to violence (Folger & Baron, 1996; Morisson, Lantos, & Levinson, 1998). Third, worker-related characteristics may play a role, for example, young professionals (Jayaratne et al., 2004) and inexperienced ones (Brady & Dickson, 1999) are more prone to client violence. Some claim that male workers are more exposed to violence (Jayaratne et al., 2004; Ringstad, 2005), whereas others maintain that it is female workers who are more exposed (Lanza, 1996), particularly to sexual harassment (Koritsas, Coles, Boyle, & Stanley, 2007).

Exposure to client violence can be experienced as a traumatic event. It evokes strong feelings of anger toward the clients involved, as well as shock, fear, detachment, and anxiety (Jayaratne et al., 2004; Koritsas et al., 2010; Kosny & Eakin, 2008; Littlechild, 2005; Macdonald & Sirotich, 2005; Virkki, 2008) and compromises workers' effectiveness and standards of care (Koritsas et al., 2010). It diminishes work satisfaction (Harris & Leather, 2011) and may

contribute to workers deciding to leave their profession or place of employment (Needham et al., 2005). Workers also report lack of sufficient support from supervisors and managers who tend to downplay the importance of the aggression, causing workers to feel threatened and hurt.

Despite the frequency of client violence, its negative effects, and the need for an effective prevention policy (Sarkisian & Portwood, 2003), the instruments used to study this subject were developed for specific contexts to measure other types of violence. To date, none were behavior-based instruments that could be used for measurement and comparison across contexts and professional boundaries. For instance, Ringstad (2005) used a modified version of the CTS-2, which was originally developed to measure conflicts between couples. Others have attempted to measure violence indirectly, using, for example, the Confidence in Coping with Patient Aggression Instrument (Gately & Stabb, 2005). Studies exploring exposure to violence among social workers have used different self-designed measures focusing on the unique characteristics of the setting and workplace (Jayaratne et al., 2004; Koritsas et al., 2010; Littlechild, 2005; Macdonald & Sirotich, 2005; Norris, 1990; Shields & Kiser, 2003). For instance, Koritsas et al. (2010) designed a questionnaire evaluating the frequency of exposure to specific predetermined types of client violence with respect to the unique setting in which the violent event occurred and clients' and workers' demographic characteristics. Their pilot questionnaire was given to health professionals, and after changes to it were made, it was administered to a large sample of Australian social workers. The authors used discriminate function analysis to determine which variables predict group membership (participants who were exposed to violence); however, reliability was not reported.

The purpose of this study was to systematically develop a behaviorally based, universal instrument measuring client violence. This study presents the process of instrument development and initial validation among a sample of Israeli social workers. We used a sequential mixed methods design (Creswell & Plano Clark, 2007), which we chose to maximize instrument fidelity and the appropriateness and utility of the instrument (Leech & Onwuegbuzie, 2010). The next section presents the empirical development of the scale.

Research Design and Method

Schwab (1980) suggested three stages for the development of an instrument. The first deals with devising an individual item for the measurement; then the individual items are combined into scales; and finally, the psychometric analysis of the measure is performed. A mixed methods design was selected to capitalize on the strength of both quantitative and qualitative approaches to help explain significant findings (Leech & Onwuegbuzie, 2010) and for its ability to address the research purpose with sufficient depth and breadth (Chen, 1997). The study was a sequential mixed methods design (Creswell & Plano Clark, 2007; Johnson & Onwuegbuzie, 2007; Teddlie & Yu, 2007). Achieving depth was essential to be able to shed light on the social workers' experience of client violence in their unique and distinct contexts, and breadth of research was necessary to provide generalized, quantified outcomes for different types of violence in different fields. Before constructing questionnaire items on the basis of previous research, an exploratory interview was conducted to assess the appropriateness of the concept to the particular work environment, culture, and context selected for the study.

In the first stage, qualitative semistructured, in-depth interviews were carried out to map the forms of client violence experienced by social workers. In the second stage, an instrument was developed on the basis of the interviews and validated using face validity and interrater reliability. In the third stage, the convergent validity was tested on a second sample of social workers by asking the respondents to comment on the questionnaire. In the fourth stage, data collection was conducted using questionnaires that had been modified on the basis of the results and

respondents' comments. Regarding research ethics (Rea & Parker, 2012), in all the stages, participants were informed that they had no obligation to participate and were free to refuse or stop the interview at any stage. In the first two stages, since those were based on face-to-face interviews, anonymity could not be offered, yet identifying details were kept confidential; recordings of interviews were coded numerically, and the coding scheme relating recordings, transcriptions, and names were kept separately from the data, in a locked place. The third and fourth stages were based on questionnaires, and total anonymity was retained. The study was authorized by the university committee for ethical research on human beings.

Stage 1: Mapping the Forms of Client Violence

The goal of this stage was collecting direct descriptions of social workers' experiences to understand their unique perspective of client violence and explore basic patterns to their experiences (Boyatzis, 1998; Braun & Clarke, 2006).

Participants. This phase used purposive sampling to recruit 38 male and female social workers who had experienced client violence over the preceding year. The interviewees were drawn from different fields of social work: welfare officers and general social workers from municipal social service departments, mental health social workers, workers from different agencies aiding drug victims, people with retardation, and the elderly population. Interviewees were recruited by approaching the agencies, presenting the study at staff meetings, and requesting voluntary recruits who experienced client violence to be interviewed. Recruits were informed that the study dealt with experiences of social workers service interactions with clients and their reactions to it. Of all the interviewees, 80% were women, a similar percentage to that of women employed by the Ministry of Social Affairs and Social Services, which was 76% as of 2007 (Central Bureau of Statistics, 2008).

Data Collection. Qualitative data were collected through semistructured, in-depth interviews to study the participants' experiences, emotions, and behaviors, as well as the meanings they assigned to the violent occurrences. No predetermined categories were superimposed on the data (Kvale, 1996; Rubin & Rubin, 2005). The main goal was to facilitate a critical thinking process among the workers (Ben-Ari & Enosh, 2011; D'Cruz, Gillingham, & Melendez, 2007), thus allowing them to relate to their experiences both from an experiential perspective and a reflective one, as recommended when interviewing abuse victims (Enosh & Buchbinder, 2005). This method is similar to Buss and Craik's (1983)''act frequency analysis'' approach to construct validity, in that it asked people to name acts—specific, intentional behaviors—related to client violence. The interview guide was constructed using an iterative process: It was modified after each of several interviews with the social workers until the final version was reached. Interviews were conducted by experienced graduate students who were trained in qualitative in-depth interviewing. Interviews were conducted at places indicated as preferable by the interviewees (some were conducted at their workplace, some at the university facilities, and some at other locations) and lasted between 45 and 90 minutes. The interview recordings were transcribed to allow for later cross-sectional analysis.

Data Analysis. Charmaz (2006) presents clear guidelines for the processes of separating, sorting, and synthesizing large amounts of data, by using qualitative *coding*. Those guidelines are in accord with the flexible framework of thematic analysis (Boyatzis, 1998; Braun & Clarke, 2006). These codes are initially written down as names or short phrases next to a word, line, or segment of the data (an interview transcription); later, the most significant or frequent codes are

identified. After the categorization and analysis of the data and emergent themes, a theory explaining the studied phenomenon is proposed. Another phase of the interview analysis that we carried out included open coding, axial coding, and integration (Strauss & Corbin, 1998). *Open coding* refers to the stage during which the reviewer reads an interview while recording comments and questions; these will be reviewed after all the interviews in the study have been read and the reviewer has become initially acquainted with the new and vast inner worlds of the interviewees. In the second step, *axial coding*, the reviewer links the categories that emerged from the interview and tries to identify their subcategories; then, connections are found between the thoughts expressed by the interviewees and the previously identified categories and subcategories. At this stage, the reader also takes note of the distinctive manner each respondent addresses the subcategories of the study. In the final stage, *integration*, the reviewer assigns each thought to its corresponding category or subcategory and formulates broader categorizations. In the current study, three reviewers have analyzed the data, and sorted the themes, according to the principles presented above. Cases of disagreement were discussed and settled through conceptual clarification.

Trustworthiness and Credibility. Qualitative research focuses on achieving trustworthiness and credibility and does not claim to produce absolute truths (Hammersley, 1995). In quantitative research, on the other hand, validity means truth (Angen, 2000). In qualitative research, the focus moves from validity to validation, from a definitive sense of reality to a process of validation between the researcher and reader in which one's subjective understanding is involved (Angen, 2000). The use of extensive quotations in the researcher's analysis and presentation of a case enables the reader to evaluate whether different aspects of the data collected create consistently rich and thick descriptions (Lieblich, Tuval-Mashiach, & Zilber, 1998; Lincoln & Guba, 1985; Padgett, 1998). In addition, qualitative research does not aspire to generalize since the results of each study are uniquely influenced by its context and interviewees (Schofield, 1993).

Results of Stage 1

The data analysis yielded four themes, each representing distinct experiences of violence: verbal aggression, threats, aggression toward property, and physical violence. Illustrating these themes are the following excerpts from the participants' accounts. The participants' names were changed to protect their privacy.

Verbal Aggression. Many of the participants reported abuse in the form of shouting, insults, and swearing; participants were also the target of various client incriminations. The participants described these experiences as unpleasant and disturbing, but they mostly evaluated the risk for physical attack as slight. Some examples of this kind of violence follow: ''He came up close to me, raised his hand, and started shouting and swearing at me.'' Another social worker described how a client came into her office while she was busy conducting a business call. When the social worker was done talking on the phone, the client: started swearing at me, really swearing . . . she knocked a chair on the floor and shouted that I wasn't paying attention to her, wasn't treating her well—only other people.'' Another example is described by the following social worker, talking about a client whose reality perception in the situation was in question:

> He started shouting at me with no relation to [in a way that had nothing to do with] the actual moment. He thought I was family or something. I managed to say, ''I can see you're upset. Please

try to calm down.'' It was a mistake—he started screaming, ''How can you tell me to calm down? You should calm down. Who are you anyway?'' He swore at me really ugly swear words.

Threats. The second form of violence described by participants included incidents involving clients who threatened them. It appears that clients' threats are experienced as more intimidating than general verbal aggression because of the unpredictability of the situation and the potential for escalation to physical violence. The threats may be directed toward the worker personally or toward the staff or department, generally. It seems that, in both cases, the participants evaluate the risk of physical violence toward them as high, as illustrated in the following descriptions:

> She came to my office with her daughter; they were both nervous wrecks. . . . They continued shouting and saying things like they were going to burn the office down. . . . I know this client—she can be violent but it had never happened before.

The following example illustrates the emotional burden that accompanies the exposure to clients' threats:

> I was young and inexperienced and I guess he thought I was detached. He said, ''I know people like you. I eat people like you for breakfast, and you are full of yourselves.'' I don't remember the exact words he used but it was intimidating and a little bit frightening, and he also threatened me by saying he could get rid of people that he dislikes, or something like that. This threat was very frightening. I don't know if I thought he would do it . . . but it challenged my self-confidence as a therapist . . . the way he said it . . . it was cold, sadistic—with a laugh, or a smile. It shocked me. I don't know if it affected my decision to leave that year.

Aggression Toward Property. Aggression toward property was the third form of violence described by the participants. It includes the flinging about of office equipment and chairs, kicking of furniture, or slamming doors. It seems these incidents were experienced as physical attacks although the participants were not physically hurt. In many cases this kind of aggression created a commotion drawing other staff members or security guards to come and intervene, as illustrated in the following accounts:

> The client decided that social services should pay his rent, which we couldn't do. One morning he came uninvited, with his wife. He entered my office and said, ''I want what's coming to me—now!'' I asked him to step out or else I would call security. . . . Then came the big outburst. He started pulling things out of my closet and flinging them like a child.

Another social worker describes a client flinging office materials around, and generally vandalizing the place: ''This client . . . flew into a rage; first he shouted, then he started flinging about everything that was on the table. He kicked the chair and the table and screamed.''

Physical Violence. Physical violence was the fourth form of violence described. Only a few participants described physical attacks perpetrated against them by clients. These were characterized as traumatic and shocking and involved physical injury. The following social worker describes a situation of a battered woman, who was also an abusive mother, to whom the worker was trying to explain the consequences of her actions toward her children:

> In the course of this conversation, she simply attacked me—we both fell down on the floor, and she grabbed my neck and pulled my hair really hard. I will never forget that scene. Her brother-in-law

tried to pry away her hands, but she was in such frenzy that she didn't let go. The staff came in. I don't remember how I got out of it. It was really traumatic.

The following is a description of a social worker who was cut with a knife by a young client. Although there were some warning signs, the worker did not heed them:

She used to speak rudely to me—ask me what I was doing there, swearing when I curbed her behavior. . . . I was typing something and she asked to come into the office. I said okay and she sat with me, and we had a nice talk about Valentine's Day and her friends—meanwhile she was playing with a retracting blade she had in her hand, sliding it back and forth. I wasn't paying attention; I was busy . . . I wasn't scared. Then she suddenly said—''Maybe I'll stab you.'' She suddenly pulled out the blade and cut me.

Some participants described physical attacks that did not result in injuries but were experienced as highly intense, such as these:

It happened 3 years ago while I was working at a youth center. There was a young boy who couldn't stand me—I don't know why. I tried to get close to him, and then I tried to distance myself; nothing worked. One time I was in the office with another woman, a new staff member. This boy locked us inside somehow and went to the other side of the window, and he and a friend of his shouted and swore at us. They stood there and laughed, and no one knew we were locked in there. It was humiliating and frightening! I remember they threw things at us through that window. We were there for twenty minutes until someone noticed what was happening.

Stage 2: Scale Development

In the second stage, we developed the Client Violence Questionnaire (CVQ; see Schwab, 1980) and evaluated its content validity using expert judge interrater reliability ratings (see the appendix). Using the content from the interviews, we created 32 items, each describing specific behaviors and representing the four different content areas identified earlier. Following Hinkin's (1995) guidelines, the measures were shortened and items were kept as simple as possible. To examine the content validity and interrater reliability, a pretest questionnaire was administered to 43 social workers (supervisors and employees), academic staff, and social work students, acting as expert judges. All the respondents were asked to fill out the questionnaire and critique it and evaluate each question on a 7-point Likert-type scale (1 = *not relevant*, 7 = *most highly relevant*) to ensure that it matched the dimension it was intended to measure, in terms of relevance and unidimensionality. In response to the concerns expressed by the participants about the length of the survey, we retained only the 14 most relevant items. The overall interrater reliability (measured as intraclass correlation; LeBreton & Senter, 2008) was $r = .86$, and the average score of relevance was 6.2.

Stage 3: Pilot Survey

In Stage 3, we examined the internal consistency, content validity, and convergent validity of the developed instrument (Schwab, 1980).

Participants. The final version of the instrument was administered to a sample of 189 social workers occupying various positions including supervisorial ones throughout Israel. Participants were recruited by approaching the agencies, presenting the study at staff meetings, and requesting voluntary participation in the survey.

Procedure. Data were collected by undergraduate social work students as part of a class exercise given at two campuses. The pollsters explained the goal of the study to the social workers, assured them of anonymity, and informed them that they had no obligation to participate and could withdraw at any point. After the respondents completed the questionnaires, each was asked to describe any reactions or thoughts evoked by the questions and to offer any suggestions for improvement. Those reactions were collected verbally and summarized by the surveyors. This qualitative component, which accompanied the quantitative one, enabled us to reevaluate several aspects of the instrument, especially the length of the recollection period addressed by the questionnaire (as will be described in the next stage).

Measures. The Client Violence Questionnaire (CVQ) is a 14-item self-report measure that evaluates the frequency of social workers' exposure to four types of client violence experienced over the preceding year: verbal aggression, aggression toward property, threats, and physical violence. The items were assessed on a scale from 0 (*never*) to 6 (*six times and more over the previous year*); an additional score of 9 designated *never happened during the past year but happened before*. The total exposure score was calculated as the average of the items. Testing the reliability of an instrument assesses the degree to which data collected on that instrument are reproducible. The reliability correlation coefficient is the proportion of variance attributable to the true score of the latent variable (DeVellis, 1991). The CVQ was tested for internal reliability in two ways. First, scales were examined using Cronbach's coefficient. Second, an α if Item Deleted analysis was conducted to determine whether internal reliability of each scale could be improved if one of the items were deleted, with the results that no substantial increase in α could be achieved. The scale presented satisfactory reliability (Cronbach's α = .81), above the minimum value of .70 for a newly developed scale (Nunnally, 1978). One caveat should be mentioned at this point: Given the low frequency of the phenomena, especially of property and physical violence, and the relatively small sample of the pilot study, those two subscales yielded an internal consistency below the acceptable level. For the same reason, it was not possible to conduct a factor analysis. To overcome this limitation and to further validate the scale, we conducted a second, more extensive survey, which will be reported in Stage 3.

The Brief Symptoms Inventory Subscales. Twenty items assessing symptoms of distress were drawn from the Brief Symptoms Inventory (BSI; Derogatis & Melisaratos, 1983). The items used in this study comprise the four subscales of the BSI: paranoid ideation, interpersonal sensitivity, anxiety, and hostility. The original scale is a 53-item self-report measure that assesses 9 domains of psychological symptomatology. The BSI has been used and studied extensively in relation to traumatization in Israel (Dekel, Hantman, Ginzburg, & Solomon, 2007; Gilbar & Ben-Zur, 2002), as well as in relation to secondary/vicarious traumatization among social workers in Israel (e.g., Itzhaky & Dekel, 2008; Ron & Shamai, 2011); thus, it is an ideal tool for the construct validation of a measure of violence exposure. The items are rated on a 5-point scale of distress from 0 (*not at all*) to 4 (*extremely*). These domains seem related to the possible consequences of workers' exposure to client violence (Jayaratne et al., 2004; Koritsas et al., 2010; Kosny & Eakin, 2008; Littlechild, 2005; Macdonald & Sirotich, 2005; Virkki, 2008). The subscales of this frequently used scale presented good reliability with respect to the Israeli population (Cronbach's α = .73 for interpersonal sensitivity; .79 for anxiety; .75 for hostility; .73 for paranoid ideation; Gilbar & Ben-Zur, 2002). This study also found satisfactory reliability for those scales: α = .76, .81, .76, and .78, respectively.

Sociodemographic Questionnaire. This questionnaire was designed specifically for this study to determine sociodemographic characteristics found as potentially related to exposure to client

Table I. Estimates of Prevalence and Correlations of Exposure to Client Aggression: Pilot Survey.

Type of client aggression	N^a	%	Mean	SD	I	2	3	4
I. Verbal aggression	165	87.3	1.6	1.4	α = .78			
2. Threats aggression	140	74.1	0.76	0.85	.64***	α = .77		
3. Property aggression	111	58.7	0.30	0.77	.67***	.65***	α = .56	
4. Physical violence	14	7.4	0.04	0.16	.17*	.08	.25***	α = .42

Note. Total N = 189.
a. At least once over the last year.
*p ≤ .05. **p ≤ .01. ***p ≤ .001.

violence, namely, workers' gender, age, years of professional experience, and area of expertise. Questionnaire respondents were also asked to provide details of birth place, family status, religion, and years of education.

Data Analysis and Results of the Pilot Survey. The participants reported high rates of exposure to violence during the preceding year. Based on the rates of exposure over the last year, we have calculated the mean exposure. In order to calculate percentages of exposure to each form of aggression, for each form (verbal, threats, property, physical) we constructed new dichotomous variables, indicating 1 for those who experienced the specific form, and 0 for those who did not. Verbal aggression was the most frequent (165 reports, 87.3% of the sample). Threats were frequent (140 reports, 74.1% of the sample) as well as aggression toward property (111 reports, 58.7% of the sample); physical violence was the most uncommon (14 reports, 7.4% of the sample). The results indicate that the participants reported exposure to more than one form of violence. Bivariate correlations were calculated among the subscales, using Pearson's *r*. The four types of violence were correlated, although physical violence was the least correlated with the other types of violence (see Table 1).

Construct validity assesses the extent to which scales that are designed to measure independent dimensions actually measure such underlying constructs. Construct validity may be perceived as composed of convergent and divergent validities. It can be determined by examining the extent to which a particular measure relates to other measures consistent with ''theoretically derived hypotheses concerning the constructs that are being measured'' (Carmines & Zeller, 1979, p. 23). We measured the convergent validity of the CVQ by examining its correlation with four specific measures of psychological distress taken from the BSI, including anxiety, paranoid ideation, interpersonal sensitivity, and hostility. We assumed that being exposed to violence would be correlated with higher levels of distress symptoms as measured by the BSI. Indeed, significant positive correlations were found between exposure to violence and all four psychological symptoms of distress (see Table 2). Not surprisingly, the infrequently occurring phenomenon of physical violence in the first sample was not correlated with any symptom of distress.

Stage 4: Second Survey

The goal of the second survey was to further examine the internal reliability, factorial structure, and divergent validity of the CVQ, especially given the relatively low rates of the phenomenon reported in the pilot survey. Furthermore, we modified the time dimension of the CVQ to reflect the comments we received from the respondents: In responding to the pilot survey, participants were asked to report on a period of 1 year. However, many complained that this was too long

Table 2. Brief Symptoms Inventory (BSI) Scores and Correlations With CVQ Subscales: Pilot Survey.

BSI	Mean (SD)	Verbal aggression	Threats aggression	Property aggression	Physical violence
Hostility	0.67 (0.68)	.275***	.260***	.301***	.132
Paranoid ideation	1.2 (0.85)	.269***	.276***	.294***	.106
Interpersonal sensitivity	1.0 (0.76)	.198**	.249***	.282***	−.004
Anxiety	1.2 (0.80)	.268**	.246***	.266**	.101
Total 4 BSI subscales	1.0 (0.68)	.297***	.301***	.327***	.084

Note. BSI = Brief Symptoms Inventory; CVQ = Client Violence Questionnaire. Total N = 189.
*p < .05. **p < .01. ***p < .001.

and recommended it be shortened. Thus, in the second survey respondents reported on a 3-month period.

Participants. We based the analysis on a data set drawn from a homogenous set of agencies—the municipal social service departments. At the 34 agencies that received questionnaires during staff meetings, 645 participants responded (response rate of 74%); the gender ratio of the participants, 88% women and 12% men, closely reflects that of the Israeli social work profession. The average age of the respondents was 41.6 years (SD = 10.2), and the average tenure in their position was 9.6 (SD = 8.1) years.

Measures. The 14 items of the CVQ mentioned above were also included in the second survey. The scale and all the subscales had reliability higher than .70 (verbal, α = .85; threat, α = .78; property, α = .90; physical, α = .92, entire scale, α = .89), surpassing the acceptable level recommended by Nunnally (1978) for a newly developed scale.

Workplace Aggression. Two other measures of workplace aggression were included in the second survey to examine divergent validity. The first measured ''aggressive culture at the workplace.'' The instrument was a modification of the one described by Douglas and Martinko (2001). We used 4 items structured thus: ''Staff members often confront each other verbally/physically/with insults/by threatening each other'' (the form of aggression was changed for each item). The response scale ranged from 1 (*do not agree*) to 7 (*totally agree*). The second instrument was a 2-item scale measuring ''client witnessing of coworker aggression'': clients' exposure to aggression among staff members and clients' exposure to staff members' aggression toward other clients. The same response scale was used. The internal validity of the two scales was satisfactory (α = .70 and α = .78, respectively).

Data Analysis and Quantitative Results of Second Survey. The descriptive results and intercorrelations of the second survey presented in Table 3 reveal that verbal aggression was the most frequent (71.3%); 69.15% were threatened, 10.7% suffered from property violence, and 3.7% were physically attacked. Moreover, the results indicate positive relationships between all the four subscales of the CVQ.
To verify the factorial structure of the CVQ, a confirmatory factor analysis (CFA) was carried out with AMOS structural equation modeling software. Following Bollen's (1990) recommendation, we also examined the multiple indexes of the model fit. The selection of indexes was based on the recommendations of Hu and Bentler (1995), who use the following statistical procedures: χ^2 statistic, comparative fit index (CFI), normed fit index (NFI), nonnormed fit

Table 3. Estimates of Prevalence and Correlations of Exposure to Client Aggression: Second Survey.

Type of client aggression	N^a	%	Mean	SD	1	2	3	4
1. Verbal aggression	597	71.32	1.49	1.54	α = .85			
2. Threats aggression	618	69.15	0.74	0.90	.74***	α = .78		
3. Property damage	588	10.70	0.19	0.71	.36***	.50***	α = .90	
4. Physical violence	617	3.72	0.03	0.20	.20***	.31***	.35***	α = .92

Note. Total N = 645.

a. At least once over the last 3 months.

*p ≤ .05. **p ≤ .01. ***p ≤ .001.

index (NNFI), and root mean square error of approximation (RMSEA). Overall, χ^2 was significant ($\chi^2 = 260.7$, $df = 50$, $p < .001$), indicating that the model does not adequately account for the observed covariation among the variables, as might be expected with this statistic's sensitivity to sample size (Bagozzi & Yi, 1988). In a similar vein, Loehlin (1998) and Bandalos (1996) note that the χ^2 statistic used in the CFA is very sensitive to sample size, so if the sample size is large enough, almost any hypothesis will be rejected. Nevertheless, the solution does a fairly good job of accounting for the data. The NFI and CFI are well above .90, which is the criterion used by many researchers as an indication of a very good fit (Bandalos, 1996). Also, the RMSEA of .08 suggests that the factor models represent a good approximation (Arbuckle & Wothke, 2001). It may be that the significant χ^2 value is at least partly due to the large sample size, rather than to any substantial misspecification of the model. Examination of the standardized regression estimate weights indicates that all the 14 items were highly significant. Furthermore, given the higher number of respondents in this survey, we were able to calculate the reliability of the subscales.

To verify that the measure was not influenced by a mono-method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we examined divergent validity by comparing the CVQ results with two other self-report measures of aggression: ''aggressive culture at the workplace'' and ''client witnessing of workers' aggression.'' The results indicated that the correlations between each of the CVQ subscales and each of the other two instruments were low, ranging from $r = .06$ to $r = .14$, which in turn confirmed that the measure was free of mono-method bias and that the divergent validity of the CVQ was satisfactory.

Discussion

One of the hindrances to conducting systematic studies is the lack of a relevant and appropriate measurement tool. This study adds to the accumulated knowledge about the underlying structure of being victimized and creates an effective and efficient instrument for measuring client violence. The purpose of this study was to develop, test, and validate a reliable questionnaire to assess social workers' exposure to client violence. In using a mixed methods research design (Creswell & Plano Clark, 2007; Johnson & Onwuegbuzie, 2007; Teddlie & Yu, 2007) to develop a quantitative assessment, we were able to consider the contextual factors of the phenomenon. Following established procedures for scale development (Schwab, 1980), three distinct stages of research were conducted. First, we carried out a qualitative examination of the phenomenon to elicit relevant content facets for the questionnaire; second, we constructed the questionnaire and requested experts to judge its relevance and applicability; third, we delivered the instrument to a pilot sample of respondents and examined the responses in terms of

applicability, reliability, and convergent validity. As a fourth stage, we modified the instrument on the basis of the pilot survey and delivered the instrument to another (larger) sample for further examination of its reliability, factorial structure, and divergent validity.

The contribution of this study is threefold—methodological, conceptual, and practical. Our methodological approach of adding qualitative processes to quantitative ones allowed us to capture social workers' actual experiences of client violence. The qualitative process yielded four themes reflecting types of experiences prevalent in the client violence literature,[1] which we then used in the quantitative process to develop and test a behavior-based measurement tool. The conceptual perspective has been enhanced by using the participants' actual experiences to construct our measurement tool, and finally, it is now feasible to compare between various sectors, professions, workplaces, and cultures in different countries using a universal scale.

The development of the CVQ scale offers both practitioners and academic researchers a scale that can be used for internal monitoring, knowledge sharing, and further research. Practitioners will be able to apply the scale to track the level of violence experienced at each agency or by each team throughout an organization. Supervisors can compare agency and team average scores with those of other agencies and teams, and a careful analysis of the different factors may be able to reveal key weaknesses that prevent the delivery of high employee performance, and appropriate actions can be taken to reduce specific aspects of client violence. Academics will be able to use this scale as a potential starting point for comparing client violence across omnibus and discrete contexts (Johns, 2006) and tracking its causes and consequences.

The convergent and divergent validity of the scale and subscales shows that the measures ''act as though they measured the construct,'' as Nunnally (1978, p. 141) has put it. The convergent validity of the CVQ scale was examined by assessing associations between the CVQ scores and four subscales of the BSI, which tapped anxiety, depression, interpersonal sensitivity, and hostility. It was assumed that being exposed to client violence would predict higher levels of those four symptoms. Indeed, a strong positive correlation was found between the CVQ and the four BSI subscales, indicating convergent validity. Furthermore, the scale and subscales had high levels of internal reliability. To test divergent validity, we conducted several analyses of the interrelations between the scale and two other measures of workplace violence, ''aggressive culture at the workplace'' and ''client witnessing workers aggression.'' By testing divergent validity we can verify that a measure is not influenced by a mono-method bias (Podsakoff et al., 2003); indeed, the results showed that the CVQ had a low correlation with the other two measures which indicates lack of such bias.

In conclusion, this article has outlined the process of developing a quantitative instrument for client violence measurement. In the development process of the CVQ scale, we showed that in addition to its function as a research stage, the qualitative method also adds to the quantitative stage by eliciting respondents' experiences and reactions to the quantitative questionnaire, thus contributing to the validity and applicability of the instrument.

Limitations and Future Research

The study has several limitations of note. First, the instrument reflects only the themes raised by our participants; it does not evaluate sexual violence, electronic media violence (using text messages, emails, etc.), or stalking. Future research may address these issues by integrating appropriate items into the scale and adding relevant subscales. Second, the instrument is currently limited to the social work arena. Future research should be conducted in order to examine and validate the instrument to other contexts, such as the health industry. Third, an interesting finding arising from the pilot study showed that two of four subscales had low internal reliability (specifically, ''violence toward property'' and ''physical violence''). This finding is not

surprising given the small sample size of this pilot study and the scarce occurrence of these violent behaviors. Indeed, in the second quantitative study, which was repeated with a larger sample, all the subscales had high levels of reliability. Finally, data were collected within a single, unique national culture. This may cast some doubt on its universal generalizability. However, the Israeli environment provides researchers and practitioners with a convenient laboratory for studying and analyzing advanced workplace environments inasmuch as it is a ''Maduradam'' (microcosm) of the developed countries in Western Europe and North America (Harel & Tzafrir, 1999).

Appendix

The CVQ Questionnaire

Many workers encounter client violence directed at them. Please indicate how many times did it happen, over the last 3 months/year, that a client(s) did the following actions against you. If it happened in the distant past but not over the period of 3 months/year, please choose the last option—9.

	Never	Once	Twice	3 Times	4 Times	5 Times	6 Times or more	Did not happen over this period but happened in the past
1. A client shouted at you	0	1	2	3	4	5	6	9
2. A client insulted you	0	1	2	3	4	5	6	9
3. A client cursed you	0	1	2	3	4	5	6	9
4. A client slammed the door leaving the office	0	1	2	3	4	5	6	9
5. A client threw an item on the floor	0	1	2	3	4	5	6	9
6. A client kicked furniture	0	1	2	3	4	5	6	9
7. A client threatened to complain about you	0	1	2	3	4	5	6	9
8. A client threatened to damage your property	0	1	2	3	4	5	6	9
9. A client used a general threat like "you will hear from me . . ."	0	1	2	3	4	5	6	9
10. A client threatened to hurt you or your family physically	0	1	2	3	4	5	6	9
11. A client pushed you	0	1	2	3	4	5	6	9
12. A client hit you with a fist or a kick	0	1	2	3	4	5	6	9
13. A client hurt you in a way that required some minor medical attention (e.g., band-aid)	0	1	2	3	4	5	6	9
14. A client hurt you in a way that required some major medical attention (e.g., emergency room)	0	1	2	3	4	5	6	9

Authors' Notes

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Note

1. Our interviewees did not address themselves to experiences regarded as sexual harassment, assault (Stanley, Goddard, & Sanders, 2002; Koritsas et al., 2010), or stalking (Regehr & Glancy, 2011).

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