Identifying Predictors of Negative Psychological Reactions to Stalking Victimization

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Victims of stalking often experience a number of negative psychological problems including such things as fear, symptoms of depression, and anger. However, research on factors that lead to these outcomes is limited. The goal of this study was to first identify distinct subgroups of stalking victims based on measures of psychological problems resulting from being stalked. Once identified, the next step was to examine the influence of demographic and stalking-related variables on the probability of subgroup membership. The results revealed that respondents who were female, had a prior relationship with the stalker, experienced a greater variety of stalking behaviors, were divorced/separated, and reported receiving government assistance were more likely to be classified into subgroups characterized by a high probability of experiencing multiple negative outcomes.

Keywords: stalking; victimization; negative outcomes

Since the first laws criminalizing stalking were passed in 1990 (Spitzberg & Cupach, 2007), a number of studies have examined factors associated with the crime. Prior scholars have conducted research on issues such as offender characteristics (e.g., Meloy, 1996; Rosenfeld & Harmon, 2002), types of stalking behavior (e.g., Mohandie, Meloy, McGowan, & Williams, 2006), characteristics of victims (e.g., Tjaden & Thoennes, 1998), the psychological impact of stalking on victims (e.g., Logan, Walker, Stewart, & Allen, et al., 2006; Pathé & Mullen, 1997), and the link between stalking and intimate partner violence (e.g., Melton, 2007; Roberts, 2005). Particularly salient to the current study are the negative psychological outcomes following...
stalking and obsessional harassment for victims, including cognitive, emotional, and behavioral domains. The goal of this study was to first identify distinct subgroups of stalking victims based on measures of psychological problems resulting from being stalked, with particular emphasis on emotional factors. Once identified, the next step was to examine the influence of demographic and stalking-related variables on the probability of subgroup membership.

**Review of the Literature**

Currently, there is no universally accepted definition of stalking. Tjaden and Thoennes (1998) define stalking as “harassing or threatening behavior that an individual engages in repeatedly, such as following a person . . . leaving written messages or objects, or vandalizing a person’s property” (p. 1). Although similar definitions have been incorporated by others (e.g., Pathé & Mullen, 1997), some have provided alternative criteria for stalking. For example, Spitzberg and Cupach (2007) note that an element of fear on the part of the victim is typically required (particularly regarding legal definitions) before a pattern of unwanted behavior can be considered stalking. For the present study, we define stalking as stated by Tjaden and Thoennes (1998), with the understanding that the issue remains unresolved.

Because of the lack of consensus on what constitutes stalking, it is difficult to provide an estimate of prevalence. Empirical research on the prevalence of stalking, as well as many other aspects of stalking, has yielded inconsistent results. Results differ depending on the nature of the sample (e.g., representative vs. nonrepresentative samples), form of data collection (e.g., written survey, in-person interview, reliance on official records), measurement of constructs, and other factors. Indeed, a meta-analysis of stalking research conducted by Spitzberg and Cupach (2007) showed that prevalence varied from 2% to 32%, with females having a higher overall prevalence of victimization experiences. Although a more detailed critique of the prior research cited here is not possible due to space constraints, differences in research design and analytical techniques must be considered when studies are compared.

In addition, prior research indicates the presence of some type of victim–offender relationship prior to stalking in most cases, and that most of the relationships are of an intimate nature (Blaauw, Winkel, Arensman, Sheridan, & Freeve, 2002; Spitzberg & Cupach, 2007). Regarding the age distribution of stalking victims, Tjaden and Thoennes (1998) found that the majority of stalking victims were between 18 and 29 years of age. There is also strong
evidence showing that women stalked by a former intimate partner are more likely to be physically assaulted by the offender than other stalking victims are (Tjaden & Thoennes, 1998). Indeed, McFarlane et al. (1999) found that more than three quarters of intimate partner femicide victims were stalked prior to being murdered.

The Impact of Stalking on Victims

Despite the surge of research on stalking since the early 1990s, research on the psychological impact of stalking on victims has received relatively less attention compared with other issues. The limited extant research suggests that a number of detrimental consequences often follow victimization including symptoms of posttraumatic stress syndrome (PTSD), fear for physical and emotional safety, increased likelihood of developing chronic disease, disruptions in social and occupational activities, poor cognitive health, and others (Bjerregaard, 2000; Blaauw et al., 2002; Cupach & Spitzberg, 2004; Davis, Coker, & Sanderson, 2002; Dressing, Kuehner, & Gass, 2005; Mechanic, Uhlmansiek, Weaver, & Resick, 2000; Nicastro, Cousins, & Spitzberg, 2000; Pathé & Mullen, 1997; Westrup, Fremouw, Thompson, & Lewis, 1999). However, Cupach and Spitzberg (2004) also note that the likelihood of severe negative consequences following victimization depends on victims’ preexisting conditions. They cite Blaauw et al. (2002), who found that although many stalking victims had high levels of psychopathology, the high levels were largely independent of victimization.

Overall, reviews of the literature reveal that being stalked certainly leads to poor outcomes on individual, relational, and structural levels. Individually, victims may suffer psychologically and physically (Cupach & Spitzberg, 2004; Spitzberg, 2002; Spitzberg & Cupach, 2007). From a relational perspective, those around the victim, such as friends, family members, and coworkers, may suffer indirectly as they make adjustments to help the victim in various ways (Spitzberg & Cupach, 2007). Finally, social structure is affected, as members of society must pay for the costs of victimization. Attempts to estimate the financial costs of stalking in the United States give an annual figure of more than $300 million (Meloy, 2007; Spitzberg & Cupach, 2007).

Research Problem

The existing research indicates that stalking victims are at risk for a number of negative psychological consequences. However, it is not clear
what factors most strongly influence the likelihood of such outcomes among victims. This purpose of this study was to identify distinct subgroups (classes) of stalking victims based on the types of negative outcomes they reported experiencing due to their victimization. Based on these subtypes, the goal was to identify demographic variables and stalking-related measures that are associated with different negative psychological outcomes.

Method

Sample

We utilized data from the third annual Texas Crime Victimization Survey (Kercher, Johnson, & Yun, 2006). This telephone survey employed random-digit dialing to obtain a representative sample of adult Texas residents. The intent of the annual survey is to obtain general information on the nature and extent of criminal victimization among Texas residents. In addition, the 2006 report (interviews conducted in 2005) included a supplemental section on stalking victimization. In all, 701 respondents completed the survey. For this study, we limited our analyses to respondents reporting at least one instance of stalking victimization ($n = 128$). The final sample size for the study was 123 because of missing data on the dependent variable for five cases.

Measures

Negative effects of stalking. The dependent variables used were nine items pertaining to respondents’ negative psychological reactions to being stalked. Participants were asked if they suffered the following reactions (yes or no) as a direct result of being stalked (with the percentage of respondents who reported each reaction in parentheses): loss of sleep (30.9%); nightmares (14.6%); loss of appetite (18.7%); depression (23.6%); feelings of helplessness (25.2%); lack of concentration (27.9%); fear of being alone (26.0%); anger (61.0%); and wanting to be alone (17.1%). These nine items were included in the latent class analysis, which is discussed below.

Independent variables. Several variables associated with stalking victimization were included that may have utility in differentiating the identified latent classes. A measure of stalking variety was created by dividing victims into groups based on the number of different types of stalking behaviors experienced. Respondents were asked if they experienced (yes or no) 19 different
stalking behaviors over the past 24 months (see Appendix for a list of these items). Items were chosen based on prior research pertaining to acts of stalking (see Dressing et al., 2005; Tjaden & Thoennes, 1998; Turmanis & Brown, 2006). A three-category variable was created for which the first category (1) consisted of those experiencing only one form of stalking, the second category (2) contained respondents reporting two or three forms, and those experiencing four or more were placed in the third category (3).

One potential problem with classifying individuals based on the number of stalking behaviors experienced is that it fails to capture differences in types of stalking behaviors. Therefore, we included an alternative measure of stalking victimization based on the type of stalking experienced. The 19 stalking items were subdivided into four distinct groups based primarily on Spitzberg’s (2002) stalking tactics typology. Although Spitzberg identifies seven types of stalking, we limited our analyses to the incorporation of four because of an insufficient number of stalking items for, and conceptual ambiguity between, some of the proposed types. The four types included here are threats (Items 1, 3, 10, 11, 13, 17, 18, and 19 in the Appendix), pursuit proximity and surveillance (Items 6, 7, 8, and 9), hyperintimacy (Items 2, 4, and 5), and invasion (Items 12, 14, 15, and 16). Approximately one half of all respondents (50.4%) reported experiencing a single type of stalking victimization, 21.1% reported two types, 15.4% reported three types, and 13% reported experiencing all four types of stalking.

A measure of stalking duration was based on a question asking respondents to recall the number of months the stalking took place. Although most reported that the stalking lasted less than 6 months, the answers ranged from 0 to 488. Therefore, we collapsed responses into three categories: 1 month or less (38.8%), 2 to 6 months (33.0%), and more than 6 months (28.2%).

The remaining independent variables were three dichotomous measures pertaining to stalking. First, respondents were asked if they knew the offender prior to being stalked (yes = 1; no = 0). Second, respondents were asked if they contacted the police because of their victimization (yes = 1; no = 0). Third, respondents were asked about any other measures they took besides contacting the police to deal with the stalker. Respondents who reported that they took any other measures (seek family support, obtain weapons, take added security measures, move away, change locks, change phone numbers, ignore the offender, and report or threaten to report stalker to superior at work) were coded 1, and all others were coded 0.

Demographic variables. Based on previous research, several demographic variables were included in this study. These measures were gender (female = 1),
race (White = 1, non-White = 0), current marital status, education, and government assistance. With the exception of gender, demographic variables have typically been used to provide baseline estimates of stalking effects or as controls for theoretical measures (e.g., Davis et al., 2002; Dressing et al., 2005; Nicastro et al., 2000). Current marital status was a 4-category variable of respondents’ status during the time of the interview. The categories were married (0), single and never married (1), divorced or separated (2), and widowed (3). Education was a dichotomous variable, where respondents with at least a high school diploma were coded 1 and all others were coded 0. Finally, respondents were asked if they or anyone in their household received any form of government assistance (e.g., welfare, Medicaid, or food stamps). Those reporting assistance were assigned a score of 1 and all others were assigned a score of 0.

Analytical Strategy

To identify distinct groups of victims based on measures of negative psychological impact, we utilized latent class analysis (LCA) using the Mplus software package version 4.2 (Muthén & Muthén, 1998-2006). Latent class analysis is a multivariate technique, similar to cluster analysis, that uses information from categorical variables to identify clusters (classes) of cases that are similar. Because of the binary nature of the negative reaction items used here, LCA is well suited to not only identify distinct groups of victims based on negative outcomes, but also to assign individual cases to classes based on their posterior probability of belonging to a particular group (Dayton, 1998; Magidson & Vermunt, 2004).

Results

Identification of Latent Classes

First, we identified the number of latent classes based on measures of model fit as well as practical applicability. Once the classes were identified, we assigned each case to the class that corresponded to the highest posterior probability of membership. The process of identifying the number of classes began with assessment of a single-class model followed by assessments of models with two, three, and four classes. The generally accepted method for deciding on the number of latent classes to retain is evaluation of fit indices,
particularly the Bayesian information criterion (BIC). Table 1 displays log likelihood, BIC, and sample size adjusted BIC (SSABIC) scores for one-, two-, three-, and four-class models. Fit indices with lower absolute values indicate better model fit. Based on the log likelihood and SSABIC scores, the model with four latent classes appears to be superior given its lower absolute value. However, based on the BIC index, the two-class model seems better given its lower value.

If we were to use fit scores as the only guide for class identification, we would be forced to choose between two or four classes, excluding the three-class model in between. However, we must also consider the practical aspects of deciding on the number of classes. First, the four-class model included a class containing only six cases, making between-class comparisons problematic. Therefore, we excluded the four-class model from consideration. Second, the two-class model is problematic because it essentially divided the sample into a group with a high probability (>50%) of experiencing every negative outcome, and a group with low probabilities (<20%) of experiencing every negative outcome other than anger. Based on prior research, we expected to find more heterogeneity in negative outcomes and such a simple dichotomy did not seem realistic.

Thus, the three-class model was deemed the most appropriate model. The three-class model had better SSABIC and log likelihood scores compared to the two-class model, and contained at least 19 cases in each class, which allowed for more reasonable between-class comparisons than the four-class model. In addition, we concluded that the three-class model was highly accurate in predicting class membership based on a .98 entropy value. Finally, we found clear class differentiation based on the average across-class probabilities of being assigned to a particular group, which were .99, .97, and 1.00 for Classes 1, 2, and 3 respectively.

Table 1
Fit Statistics for Latent Class Models of Negative Outcomes

<table>
<thead>
<tr>
<th>Number of classes</th>
<th>LL</th>
<th>df</th>
<th>BIC</th>
<th>SSABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-604.3</td>
<td>492</td>
<td>1251.9</td>
<td>1223.5</td>
</tr>
<tr>
<td>2</td>
<td>-436.5</td>
<td>490</td>
<td>964.4</td>
<td>904.4</td>
</tr>
<tr>
<td>3</td>
<td>-417.3</td>
<td>479</td>
<td>974.1</td>
<td>882.4</td>
</tr>
<tr>
<td>4</td>
<td>-406.6</td>
<td>470</td>
<td>1000.9</td>
<td>877.5</td>
</tr>
</tbody>
</table>

Note: LL = log likelihood; df = degrees of freedom; BIC = Bayesian information criterion; SSABIC = sample size adjusted BIC.
**Labeling the latent classes.** The next step was to label classes based on the conditional probabilities of responding affirmatively to the negative outcome items used to identify the groups (Table 2). Class 1 \((n = 19)\) contains respondents who had high probabilities of experiencing almost all of the negative reactions to victimization. Members of Class 1 were more likely than those in the other two classes to experience loss of sleep, nightmares, loss of appetite, depression, feelings of helplessness, fear of being alone, and anger. Thus, this group can be best described as high in the sense that individuals in Class 1 were likely to experience all of the reactions.

Class 2 \((n = 19)\) represents respondents who were highly likely (conditional probability of .60 or greater) to report lack of concentration, anger, and loss of sleep (see Table 2). In addition, the conditional probabilities of feeling depressed and wanting to be alone were at moderate levels (> .40). Class 2 members were more likely to report lack of concentration and wanting to be alone than the other two classes. However, compared with Class 1, Class 2 cases were less likely to report experiencing the other outcomes, which tended to be more serious. Therefore, Class 2 was identified as moderate in that they were less likely than Class 1 to experience the symptoms, but reported moderate-to-high probabilities for several indicators.

Finally, Class 3 \((n = 85)\) represents respondents who were not likely to report experiencing any negative outcomes aside from anger (see Table 2). Although this cluster of cases had a moderate probability of experiencing anger, the probability was lower than both Class 1 and Class 2, which indicates that anger may be relatively common for all stalking victims. Therefore, Class 3 was labeled a low group due to the low conditional probabilities of reporting nearly all of the reactions.

**Bivariate Differences Between Classes**

**Demographic differences.** Although it is informative to identify different patterns of how victims react to stalking, it is important to examine factors that influence such differences. Table 3 displays the results based on tests of demographic differences between the three classes. These bivariate results suggest marginally significant \((p < .10)\) gender differences, as females were more likely to be in the high class, and less likely to be in the moderate and low classes.

There is also evidence that marital status has an influence on class membership. Although only marginally significant \((p < .10)\), the chi-square test indicates that those who were married at the time of the interview were less likely to be in the high or moderate classes compared with those who had
never been married. In addition, respondents who reported being divorced or separated were more likely to be in the high and moderate classes than those who had never been married.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Conditional Probabilities of Item Responses for Three-Class Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>High ((n = 19))</td>
</tr>
<tr>
<td>Loss of sleep</td>
<td>0.876</td>
</tr>
<tr>
<td>Nightmares</td>
<td>0.880</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>0.723</td>
</tr>
<tr>
<td>Depression</td>
<td>0.951</td>
</tr>
<tr>
<td>Feelings of helplessness</td>
<td>0.948</td>
</tr>
<tr>
<td>Lack of concentration</td>
<td>0.844</td>
</tr>
<tr>
<td>Fear of being alone</td>
<td>1.000</td>
</tr>
<tr>
<td>Anger</td>
<td>0.844</td>
</tr>
<tr>
<td>Wanted to be alone</td>
<td>0.487</td>
</tr>
<tr>
<td>Latent class proportions</td>
<td>0.156</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Demographic Measures by Latent Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Total ((n))</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>66.7 (82)</td>
</tr>
<tr>
<td>Age 18-29</td>
<td>30.9 (38)</td>
</tr>
<tr>
<td>30-44</td>
<td>33.3 (41)</td>
</tr>
<tr>
<td>45+</td>
<td>35.8 (44)</td>
</tr>
<tr>
<td>Race (White)</td>
<td>50.4 (62)</td>
</tr>
<tr>
<td>Current marital status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>49.6 (61)</td>
</tr>
<tr>
<td>Single, never married</td>
<td>34.2 (42)</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>10.6 (13)</td>
</tr>
<tr>
<td>Widowed a</td>
<td>4.9 (6)</td>
</tr>
<tr>
<td>High school diploma</td>
<td>78.0 (96)</td>
</tr>
<tr>
<td>Household receives government assistance</td>
<td>34.1 (42)</td>
</tr>
</tbody>
</table>

a. Widowed excluded from chi-square test because of low cell counts.

\( *p < .10. \quad **p < .05. \)

never been married. In addition, respondents who reported being divorced or separated were more likely to be in the high and moderate classes than those who had never been married.
We also found that respondents who reported receiving some form of government assistance were significantly less likely \( p < .05 \) to be in the low class, indicating that those with financial needs may suffer more effects from stalking than others. However, we failed to find significant differences in class membership between those who graduated from high school compared with respondents who did not have a diploma. There were also no significant class differences between Whites and non-Whites. Finally, although the results suggest that respondents between 18 and 29 years of age were more likely to be in the high class compared with those 30 to 44, who were more likely to be in the high class compared to the 45 and over age group, the differences were not statistically significant.

**Differences based on stalking-related measures.** Table 4 displays the results comparing classes based on several stalking-related variables. First, as expected, victims who knew their stalker before the stalking took place were significantly more likely \( p < .01 \) to be in the high or moderate class compared with those who did not know the offender. Second, significant differences \( p < .001 \) in class membership were found based on the number of different forms of stalking behavior experienced. Respondents who reported experiencing two or three forms of stalking behavior were more likely to be in the high or moderate class compared with respondents reporting a single form of stalking. In addition, those reporting four or more forms of stalking were more likely to be in the high or moderate class than individuals reporting two to three behaviors. Thus, it is evident that experiencing more types of stalking behavior increases the likelihood multiple negative psychological outcomes.

Table 4 also shows class differences based on the four stalking behavior types. Because many respondents reported experiencing more than one type of stalking, each type is analyzed independently. For example, the results indicate significant latent class differences between those who were victims of hyperintimate stalking and those who were not. Significant class differences were found based on stalking type comparisons, with the exception of invasion. However, the three stalking types showing significant class differences all showed similar classification patterns. Although there were no significant class differences between invasion victims and all others, the results are suggestive of differences between those experiencing invasion tactics and those who experience other forms of stalking. Although sample limitations prevented further exploration of this issue, future research should carefully evaluate the utility of classification schemes for stalking behaviors to justify or reject the utility of such approaches.

Third, clear class differences can be seen based on the duration of stalking. Respondents who reported being stalked for 1 month or less were less likely
to be in the high class than those reporting a longer duration. Furthermore, those who reported being stalked for more than 6 months were much more likely to be in the high class than all others.

Fourth, the results do not suggest any class differences between respondents who reported their stalking victimization to the police compared with those who did not; although the raw numbers indicate that those who reported to the police were more likely to be in the high class. Finally, significant class differences ($p < .01$) were found based on whether or not respondents took any other measures (besides contacting the police) to deal

### Table 4

**Stalking-Related Measures by Latent Class**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Latent class</th>
<th>Total</th>
<th>High 15.4% (n = 19)</th>
<th>Moderate 15.4% (n = 19)</th>
<th>Low 69.1% (n = 85)</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior victim-stalker relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stranger</td>
<td></td>
<td></td>
<td>40.7 (50)</td>
<td>8.0 (4)</td>
<td>4.0 (2)</td>
<td>88.0 (44)</td>
</tr>
<tr>
<td>Stalker known to victim</td>
<td></td>
<td></td>
<td>59.3 (73)</td>
<td>20.5 (15)</td>
<td>23.3 (17)</td>
<td>56.2 (41)</td>
</tr>
<tr>
<td>Variety of stalking behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td></td>
<td></td>
<td>36.6 (45)</td>
<td>2.2 (1)</td>
<td>4.4 (2)</td>
<td>93.3 (42)</td>
</tr>
<tr>
<td>Two or three</td>
<td></td>
<td></td>
<td>30.9 (38)</td>
<td>13.2 (5)</td>
<td>13.2 (5)</td>
<td>73.7 (28)</td>
</tr>
<tr>
<td>Four or more</td>
<td></td>
<td></td>
<td>32.5 (40)</td>
<td>32.5 (13)</td>
<td>30.0 (12)</td>
<td>37.5 (15)</td>
</tr>
<tr>
<td>Type of stalking*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimidation and harassment</td>
<td></td>
<td></td>
<td>51.2 (63)</td>
<td>22.2 (14)</td>
<td>25.4 (16)</td>
<td>52.4 (33)</td>
</tr>
<tr>
<td>Pursuit, proximity, surveillance</td>
<td></td>
<td></td>
<td>43.9 (54)</td>
<td>25.9 (14)</td>
<td>22.2 (12)</td>
<td>51.9 (28)</td>
</tr>
<tr>
<td>Hyperintimacy</td>
<td></td>
<td></td>
<td>44.7 (55)</td>
<td>21.8 (12)</td>
<td>29.1 (16)</td>
<td>49.1 (27)</td>
</tr>
<tr>
<td>Invasion</td>
<td></td>
<td></td>
<td>51.2 (63)</td>
<td>20.6 (13)</td>
<td>17.5 (11)</td>
<td>61.9 (39)</td>
</tr>
<tr>
<td>Duration of stalking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 month or less</td>
<td></td>
<td></td>
<td>38.8 (40)</td>
<td>5.0 (2)</td>
<td>10.0 (4)</td>
<td>85.0 (34)</td>
</tr>
<tr>
<td>2-6 months</td>
<td></td>
<td></td>
<td>33.0 (34)</td>
<td>17.6 (6)</td>
<td>26.5 (9)</td>
<td>55.9 (19)</td>
</tr>
<tr>
<td>More than 6 months</td>
<td></td>
<td></td>
<td>28.2 (29)</td>
<td>37.9 (11)</td>
<td>17.2 (5)</td>
<td>44.8 (13)</td>
</tr>
<tr>
<td>Reported stalking to the police</td>
<td></td>
<td></td>
<td>44.6 (54)</td>
<td>22.2 (12)</td>
<td>14.8 (8)</td>
<td>63.0 (34)</td>
</tr>
<tr>
<td>Took any measures to deal with stalker besides contacting police</td>
<td></td>
<td></td>
<td>46.7 (56)</td>
<td>26.8 (15)</td>
<td>21.4 (12)</td>
<td>51.8 (29)</td>
</tr>
</tbody>
</table>

a. Types of stalking are not mutually exclusive

*p < .01.
with the stalker. Table 4 indicates that taking other measures is associated with being in the *high* or *moderate* class. The likely explanation for this is that victims who sought help experienced more severe forms of stalking, and not that seeking help leads to more problems than doing nothing.

**Discussion**

The purpose of this study was twofold. The first task was to identify distinct subgroups of stalking victims based on measures of negative psychological reactions to being stalked. The second step was to compare subgroups based on demographic and stalking-related variables in order to identify factors predicting class membership.

Results from the LCA revealed three distinct subgroups of stalking victims: (a) a *high* class composed of respondents with high probabilities (> .70) of experiencing all reactions aside from wanting to be alone; (b) a *moderate* class composed of respondents with a mixture of high, moderate (between .40 and .69), and low (below .40) probabilities of experiencing a particular reaction; and (c) a *low* class of respondents with low probabilities of experiencing all reactions other than anger. Overall, the majority of respondents (69.1%) were in the *low* class, suggesting that some forms of stalking victimization are not as problematic as others are, and/or a substantial proportion of victims are able to utilize protective factors to buffer the impact of being stalked on psychological well-being. However, a significant proportion of respondents were in the other two classes, which were characterized by a high likelihood of experiencing multiple problems due to being stalked.

Demographic comparisons of the three classes showed that females were more likely than males to be in the *high* class, although males were slightly more likely to be in the *moderate* class. This finding is consistent with prior research showing that females report experiencing greater psychological impact from victimization (e.g., McEwan, Mullen, & Purcell, 2007). Comparisons based on marital status showed that those who had never been married were more likely to be in the *high* or *moderate* class compared with married respondents; however, divorced/separated respondents were the most likely to be classified in the *high* or *moderate* cluster. In a related study, Nicastro et al. (2000) found that separated or divorced stalking victims had significantly higher levels of anxiety than others, but no such differences were found for the other measures of symptomology used. Finally, respondents who reported receiving government assistance were significantly more likely to be in the *high* and *moderate* classes than those not reporting assistance. Although the research is limited on
the relationship between negative reactions to stalking and measures related to socioeconomic status, there is little evidence in the existing literature supportive of a significant relationship (e.g., Dressing et al., 2005).

Several measures associated with stalking victimization were significantly associated with class membership. Respondents most likely to be in the low class did not know their stalker prior to being victimized, were subjected to fewer forms of stalking behavior, were stalked for a shorter duration, and typically did not report taking any action to deal with the stalker. Knowing the stalker prior to being victimized has been cited as an important factor in predicting victims’ negative psychological outcomes (e.g., Pathé & Mullen, 1997); however, McEwan et al. (2007) note that some studies found evidence to the contrary (e.g., Purcell, Pathé, & Mullen, 2005). In contrast to the mixed results pertaining to prior relationship, our finding that experiencing more types of stalking behavior (and thus, more serious forms of stalking behavior) led to more psychological problems is consistent with other studies (McEwan et al., 2007; Nicastro et al., 2000). The finding that longer stalking duration increased the likelihood of experiencing more psychological problems is contrary to Nicastro et al. (2000), who did not find a significant relationship between duration and various health indicators, and Blaauw et al. (2002), who found that shorter duration increased the likelihood of health problems.

Overall, the results from this study provide important information pertaining to the risk of negative and psychological reactions to being stalked. Nevertheless, there are limitations that must be noted. It is possible that our definition of stalking was overly broad. Although each of the behaviors used as stalking items can be considered stalking, some (particularly the less serious forms) might have been more closely related to obsessional harassment depending on context. However, the majority of respondents (75.6%) reported experiencing at least one negative reaction to being stalked, suggesting low likelihood of a large number of false positives.

Limitations pertaining to the measures used must also be considered. First, although we included 19 types of stalking behaviors and 9 different psychological reactions, the full spectrum of behaviors and reactions was not achieved. Thus, it is possible that some respondents experienced a form of stalking behavior that was not incorporated in the study. Likewise, stalking victims may have experienced negative reactions that were not asked in the interview. Second, because they were dichotomous (yes/no), the negative reaction items had poor psychometric properties. In addition, several of the negative reaction variables were single-item representations of constructs often measured with multiple-item inventories (e.g., depression and anger). It is also
possible that many stalking victims had psychological problems before being stalked, and the victimization reflected or exacerbated these problems. However, respondents were asked to report experiencing a problem only if it was a direct result of being stalked, which likely served to reduce the impact of this limitation. Thus, the validity of our results may have been strengthened by incorporating Likert-type response variables and/or established psychological inventories for some of the measures. Finally, it is possible that the 19 stalking items were not mutually exclusive. For example, breaking into a house, car, or business may be construed as the same thing as stealing from a house, car, or business. Although breaking into and stealing are two different behaviors, they can both occur during the same incident.

Finally, there were limitations associated with our sample. First, because the data was obtained from telephone interviews, sampling error was likely due to demographic differences in nonresponse. Although computerized random-digit dialing was used to obtain a random sample, a number of factors have led to increasing problems with nonresponse bias in household telephone surveys (Curtin, Presser, & Singer, 2005; Link & Oldendick, 1999; Singer, 2006). Second, because our sample was limited to Texas residents, inferences made to individuals living outside of Texas are limited. Third, because of the small sample \(n = 123\), our data analysis options were restricted. For example, a larger sample would have permitted the use of multivariate regression techniques to further examine differences in latent class membership in addition to bivariate comparisons. The limited sample size prevented us from using a number of measures that were taken because of low frequencies (e.g., specific prior victim–stalker relationship, satisfaction with law enforcement, stalker’s reaction to attempts by the victim to deal with stalking). Greater numbers on these items would have allowed for inclusion of these important variables, and future research should examine their impact on stalking victims.

In conclusion, the results from this study provide preliminary evidence that at least three distinct subgroups of stalking victims can be extracted based on the number and severity of negative psychological reactions to the experience. The results also show that subgroup differences may be predicted by factors such as gender, socioeconomic status (SES), relationship with stalker, and variety of stalking behaviors. Future research should seek to verify the results found here using larger samples and samples based on different populations. Future research efforts should also utilize improved measures of the constructs examined in this study, as well as incorporate additional measures not used here.
Appendix

Stalking Behavior Items
1. Repeated angry and threatening emails, notes, and letters.
2. Repeated unwanted e-mails, notes, and letters that were apologetic/expressing love.
3. Three or more unwanted calls from the same person that were angry/threatening.
4. Three or more unwanted calls from the same person that were apologetic/expressed love.
5. Repeated phone calls from the same person who hung up or said nothing when answered.
6. Spied on at home.
7. Followed or spied on while in public.
8. Unwanted contact because someone was waiting around outside the home, work, etc.
9. Person came to the home or workplace and created a disturbance.
10. Threatened to hurt or kill.
11. Threatened to hurt or kill family members.
12. Car was tampered with.
13. Threatened while driving a car.
14. Broke into the house, car, or business.
15. Stole items from the house, car, or business.
17. Threatened to report respondent to police for something that did not occur.
18. Threatened to commit suicide.
19. Threatened to report respondents to Child Protective Services (CPS) or other authorities if demands were not met.

References


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