Liking and Perceived Closeness Create Latent Positive Bias in Collateral Risk Assessment

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Abstract

Counseling psychologists and other mental health professionals routinely conduct risk assessments using varied sources of information. The purpose of this process is typically to improve the validity of their assessments by reducing the potential for bias or other blind spots that might be caused by over-reliance on any single source of information. Some inside and outside the field have argued that collateral reporters are one useful source of additional supplemental information, but the research literature is unclear about their reliability. Drawing insights from a social psychological framework, we demonstrate that perceived closeness and liking were associated with decreased perceptions of risk. We argue that this positive bias may result in under-reporting of risk, and we suggest that clinicians who consult collateral data for risk assessment purposes may wish to offer some degree of guidance or training to the collaterals in order to minimize the effects of their latent positive bias.

Relatives and friends are often retroactively asked to explain the behavior of loved ones, especially in the event that such an individual commits a violent act related to underlining psychopathology. When Seung Hui Cho killed 32 people at Virginia Tech University in 2007, for instance, many pundits wondered why his violence was not foreseen by family members or mental health professionals. Cho had a history of significant mental health problems, was known to have thoughts of harming others, and a lengthy history of interaction with the mental health care system in his schools and community (Virginia Tech Review Panel, 2007; Flynn & Heitzmann, 2008; Newman & Fox, 2009). Family members found themselves being questioned on a national stage. Shouldn't they have done more, warned their community, or alerted authorities? It is easy to speculate in hindsight, but rarely do family members in these vulnerable situations have training in risk assessment. Moreover, even trained professionals routinely disagree about risk assessment. Although many outside the mental health profession seem to think collateral reporting is an important part of making communities safer, it is unclear from the research literature whether friends and family members can be reasonably expected to foresee violence or psychological instability.

Although mass violence is an exceedingly rare phenomenon, mental health problems like suicide, problem gambling, and alcohol addiction are not uncommon. Just as with mass violence, family members are sometimes blindsided when a loved one discloses these types of clinically significant issues. Is it that no warning signs were present, or instead that they simply went unnoticed? Once again, hindsight rules. In retrospect, close friends and family members often report missing or dismissing key information along the way, and they describe feeling as if they "should have seen the signs." It is unclear from the present literature whether this is motivated selective attention, active denial, simple inattention to detail, something else entirely, or some

combination thereof. The present study used a social psychological approach informed by clinical theories to explore one possibility. Does relationship strength between a patient and a close friend or family member inform their risk assessments? A variety of research in clinical psychology has demonstrated that strong feelings in therapeutic relationships, whether positive or negative, are can created “blind spots” in clinical practice and assessment (Abend, 1989; Bernal & Castro, 1994; Holmes, 1999). Do collateral reporters have blind spots created by strong feelings as well? Decades of research in another domain, social psychology, has shown that liking and closeness nearly universally leads to unconscious favorable misperception across a wide variety of domains (Cialdini, 2009; Eagly, Ashmore, Makhijani, & Longo, 1991). Based on the convergence of these two ideas, it was predicted here that collateral reporters would be biased in favor of individuals with whom they had close relationships characterized by high levels of liking. Likewise, it was further predicted that risk assessments would increase when they felt distant, or they disliked the patient they were assessing. It was hoped that studying the mechanisms of non-professional, collateral risk assessment using an interdisciplinary approach would lead to downstream advances in understanding what differentiates successful from unsuccessful risk predictions in untrained observers. In an applied sense, another purpose of the present study was to explore how friends and family members form their risk perceptions when a loved one is being treated in a real-life setting: outpatient mental health care.

Collateral Risk Assessment Needs Increased Attention

Rates of psychiatric hospitalization and suicide have risen over the past several years (National Center for Health Statistics, Blader, 2011), and increased attention has been devoted to risk assessment practices with regard to a variety of mental health concerns (e.g., suicide, substance use, problem gambling, disordered eating, etc.) (Schmitz et al., 2012). Understandably,

proportional advances in the development of empirically validated assessment techniques and utilization of best practices are still a work in progress. One study, for example, found that 23 % of clinical psychologists registered with the American Psychological Association did not use any form of suicidal ideation inquiry during initial sessions with their patients (Sullivan, 2004). Another study found that only 38% of physicians who had lost a patient to suicide had conducted risk assessments (Milton, Ferguson, & Mills, 1999). Risk assessments like these take time and resources that are not always available in outpatient settings (Schmitz et al., 2012). Although there has been an increased push within various mental health fields for clinicians to complete more consistent and comprehensive suicide risk assessments when possible, it is widely understood that these measures are imperfect and limited, and progress is still underway in terms of standardizing the assessment of suicidality or other types of risky behavior (Simon & Shuman, 2006; Borum, 1996; Sullivan & Bongar, 2009), and practitioners interested in adopting risk assessment techniques may be inhibited by the lack of a defined universal standard in the field.

Some in the field have also speculated that involving collateral lay observers may supplement the validity of clinician's risk assessments of relatively routine problem behaviors like drug use, gambling, or eating disorders (Heilbrun, Dvoskin, & Heilbrun, 2009; McNiel, 2009). However, in addition to the time cost of surveying collaterals, it is unclear whether they would actually provide clinically actionable information. Most empirical work on collateral information has focused on exclusively on its diagnostic utility, not necessarily on risk assessment. For instance, several individual studies have shown that collateral reporters can accurately diagnose conditions that range from schizophrenia to dementia (Cacchione, Powlishta, Grant, Buckles, & Morris, 2003; Carr, Gray, Baty, & Morris, 2000; Desmarais, Van Dorn, Sellers, & Young, 2013; Hagman, Chon, Noel, & Clifford, 2010; Rabin et al., 2012). One

comprehensive meta-analysis also found moderate correlations between several reporter types and concluded that the use of multiple sources of data was the best method to diagnose psychopathology (Achenbach, Krukowski, Dumenci, & Ivanova, 2005).

Several experts have also called for the routine involvement of collateral information in assessment of harm to self and others, and evidence is beginning to suggest that it can be a useful practice (Conner, Conwell, & Duberstein, 2001; Heilbrun, et al., 2009; Sullivan & Bongar, 2009). In theory, collateral reporters could provide key supplemental information when patients lack insight about their symptoms or their impact, when they are underreporting due to social desirability concerns, or when they malingering to fulfill needs for attention or unnecessary medication, among a variety of other possibilities. However, risk assessment differs from diagnostic assessment in that diagnostic assessment requires description of past behavior but not prediction of future behavior. Because most collaterals do not have training in risk assessment, they may be unable to differentiate between clinically relevant warning signs indicating risk or something more benign. In hindsight, it is much easier to tell the difference, but in real time, it is a nearly impossible task for those with little to no training. An important first step to understanding collateral reporters' applied approach to risk assessment is to explore how they go about making their assessments in a real-world setting.

A Social Psychological Approach to Lay Risk Assessment

An unfortunate consequence of scientific specialization is that experts in different fields often focus on solving the same problem without explicitly communicating with each other. As a discipline, social psychology is the study of how individuals interact with, and exert influence on, each other. In many ways, social psychologists investigate core areas of clinical practice. They do not do it with mental health applications in mind, however, and the specialization gap is

never bridged. Similarly, mental health professionals are often familiar with some of social psychology's key principles, but the specialized research literatures do not intersect in many cases where it might be of translational benefit. For both practical and professional reasons, then, interdisciplinary work has the potential to yield key applied insights, and the present study was designed to explore non-expert collateral risk assessment using a well-documented phenomenon from social psychology known as the Halo Effect (Thorndike, 1920), with the specific aim of better understanding some of the mechanisms underlying the very real problem of inaccurate collateral risk assessment.

The Present Study

In one classic demonstration of the Halo effect, attractive individuals were judged by untrained observers have better personal qualities than their less attractive counterparts. Attractiveness created unintentional bias in which its halo created lasting implicit bias in seemingly unrelated domains (Dion, Berscheid, & Walster, 1972). A subsequent flurry of research activity demonstrated that attractiveness influences judgments about virtually any characteristics that can be subjectively observed, and it has been repeatedly found that liking and relational closeness produce nearly identical evaluative biases (Cialdini, 2009), ranging from estimates of intelligence, to competence, to humorousness, to everything in between (Eagly, et al., 1991).

We wondered whether liking and relationship quality affected collateral risk assessments, and the primary purpose of the present study was to explore whether the liking halos reduce risk perceptions provided by collateral reporters. It is important to note that this study was not designed to document the accuracy of collateral risk assessments. Instead, the purpose was to explore what determine factors that influence the perceptions themselves, whether accurate or

inaccurate. Previous social psychology research has shown that liking and closeness are associated with more positive judgments across domains, and so it was hypothesized here that greater liking and more closeness would be associated with decreased risk perception. A second purpose of the present study was simply to examine the feasibility of collecting lay risk assessment data from collateral sources during the course of regular outpatient therapy.

Method

Recruitment

Participants were initially recruited from the patient population at the Rochester Center for Behavioral Medicine (RCBM) in Rochester Hills, MI. RCBM is a private outpatient psychiatric clinic that serves suburban metropolitan Detroit. The RCBM patient population consists of children, adolescents, adults, and seniors with a variety of mental health conditions; including anxiety, depression, ADHD, learning disorders, work related issues, stress, and marriage and family concerns. RCBM provides therapy, medication management, and diagnostic screening. All adults presenting for diagnostic screening (Patients) were asked if they would be willing to participate in a research study. Each Patient who agreed was also asked to nominate a “collateral reporter” (Reporter) who they felt knew them well enough to report about their mental health, and RCBM staff contacted those Reporters by postal mail. All participants, both patients and Reporters, were offered a small incentive (\$5 Starbucks gift cards) for their participation, and they could earn up to two cards per person by participating in both halves of the study.

Participants

The Patients ($n = 76$) were aged 18 - 70 ($M = 33.73$, $SD = 13.11$). There were 43 women, 31 men, two who specified another gender designation. As illustrated in Table 1, the types of Reporters ($n = 73$) nominated by the Patients were friends (2), family members (31), and

romantic partners (40). Additional demographic information about the Reporters and Patients, including presenting problems, was not recorded and were responses were not linked to the Patients' charts to encourage honesty and unfiltered reporting.

Materials and Procedures

The Patients completed a survey twice, once during their diagnostic screening (Time 1), and again during a later follow-up visit (Time 2). The Patients were in active treatment between Time 1 and Time 2, but the precise number of visits and duration of time was not recorded. Their follow-up self-risk assessments were either administered preceding a regularly scheduled visit or by mail. The Reporters also completed the survey twice, but both the initial and one-month follow-up surveys were sent to them by mail. Any unreturned surveys were mailed again up to three times. The surveys themselves were identical across Patients and Reporters, and they contained 20 questions. There were eight relationship status/quality items (Appendix A) and 12 risky behavior items (Appendix B). The relationship items were included to allow for assessment of any links between relationship strength and similarity of Patient/Reporter ratings. The risk items were selected because they were intake questions typically used by RCBM staff to determine whether new patients are at risk for dangerous behavior.

Results

The data were answers to the 20 Likert-type items (1 = unlikely/disagree; 7 = likely/agree) that were given at Time 1 and Time 2. Answers to the relationship items were averaged to create a composite measure of Relationship Strength ($\alpha = .91$), and answers to the mental health items were average to create a composite measure of Perceived Risk ($\alpha = .88$). Paired samples t-tests showed no significant differences ($ps > .05$) between pre and post Relationship Strength scores, and so they were averaged to create one overall Relationship

Strength score for each Patient, and one overall score for each Reporter. The Relationship Scores for Patients and Reporters showed a moderate, positive correlation, $r(46) = .38, p = .008$. The Risk Assessment Scores for Patients and Reporters had a strong, positive correlation, $r(46) = .52, p < .001$. Paired samples t-test showed no significant differences ($ps > .05$) between Patients and Reporters for either Risk Assessments or Relationship Scores, suggesting that Reporter scores may be useful in situations where Patients are unwilling or unable to provide them.

In order to determine how collateral perceptions of risk are affected by closeness and liking, the next steps in the analysis focused exclusively on the perceptions of the Reporters. Their Risk Assessments were first entered as outcome variables in a simple linear regression with their Relationship Strength scores as predictors, and they were shown to be significantly predictive, $R^2 = .10, F(1, 46) = 5.33, p = .026$. As a second step, each individual item from the Relationship Strength questionnaire was entered as a predictor in a stepwise linear regression, with the Risk Assessment score again as the outcome variable. The new model was more predictive than the original, $R^2 = .13, F(1, 46) = 6.66, p = .013$. All variables but one, Liking, were removed from the updated model, $\beta = -.36, t(46) = -2.58, p = .013$. Taken together, these results demonstrate that Reporters used their perceptions of Relationship Strength to help determine their Risk Assessments, with Liking being the item with the greatest proportion of predictive power in the Risk Assessment process.

Discussion

In recent years, mental health professionals have increasingly focused on improving routine risk assessment practices, and clinicians today use varied methods to obtain relevant information. Some examples are structured clinical interviews, empirically validated surveys, and clinical impression methods, among others. These assessments are often successful, and they

are most often used for initial treatment planning by mental health professionals (Antony & Barlow, 2011; Haynes, Smith, & Hunsely, 2011; Groth-Marnat, 2009; Morrison, 2008). Although more and more clinicians are using collateral reporting tools for diagnostic assessment, there has also been a push by some outside the field to include these collateral sources information in risk assessment procedures. The present study was designed to investigate whether a routinely observed interpersonal bias, the Halo Effect, might influence risk assessments conducted by collateral observers.

Drawing on these insights from the social psychological framework, the present study demonstrated that collateral reporters and individuals receiving treatment in an outpatient mental health clinic tended to agree about the likelihood they would engage in a variety of risky behaviors. This was true at the beginning of treatment, as well as after a month of treatment had passed. Perhaps more importantly, it was also demonstrated that Reporters used their perceptions of relationship quality, and more specifically, how much they liked the Patients, as a proxy for risk. Taken together, these results indicate that collateral risk assessments may yield useful assessment information in cases where the patient is unable or unwilling to communicate their level of risk, and mental health clinicians may wish to include it in their assessment practices. However, they should be cautioned that collateral reporters are perhaps unduly influenced by how much they like the patients. As a result, collateral risk assessment should likely only be used in exigent circumstances or in conjunction with information from a variety of sources.

Limitations and Future Directions

One of the primary limitations of the present study was that it was not possible to determine if the collateral raters, or the patients themselves, were able to provide an *accurate* assessment of risk. That is, Reporters and Patients showed a moderate degree of *agreement* in

their assessments of risk, but data was not collected that would demonstrate how much risky behavior patients actually engaged in. It could be the case that Reporters and patients agreed quite well but were completely inaccurate in their assessments. They may also have been very accurate, but the present study was not designed to test these possibilities. Now that it has been demonstrated that liking and relationship quality are linked to risk assessment, future studies with the resources available for longitudinal studies will likely want to further investigate the influence of liking on collateral reporters' accuracy in predicting risky behavior, rather than simply their level of agreement with patients.

A second limitation was that the survey in the present study did not collect information about the patients' presenting problems in order to encourage honest responding and ensure anonymity. It may be that presenting problems are very predictive of collaborator perception of risk. For example, a person seeking treatment for a spider phobia would likely be perceived to have less overall risk than someone seeking treatment for severe depression. Future studies designed to further explore the predictors of risk assessment may want build upon the work done here and include variables such as these in models that also include patient age, gender, and collateral relationship strength. Overall, it is clear that there has been recent increased interest in exploring the reliability, accuracy, and utility of collateral observers in the assessment of risk behaviors within adult patients. The present study was designed to play a small role in that process, but there is certainly a great deal more research to be done in this growing field.

Application for Intake and Assessment Protocols

Although the results of the present study do suggest that risk assessments offered by untrained collateral reporters are likely to be prone to bias, we are not here advocating that clinicians should abandon efforts to incorporate collateral assessments into the treatment process.

To the contrary, we believe that collateral risk assessment can be highly beneficial in many circumstances. Given the possibility for Halo Effect related bias, however, we argue that clinicians interested in collecting collateral data for risk assessment should also offer some degree of guidance and/or training to the collaterals in order to minimize the effects of any latent bias they might have.

In an effort to build such standards for *therapists*, Peruzzi and Bongar (1999), for instance, identified eight important factors for assessing suicidality: 1) the medical seriousness of previous attempts, 2) history of suicide attempts, 3) acute suicidal ideation, 4) severe hopelessness, 5) attraction to death, 6) family history of suicide, 7) acute overuse of alcohol, and 8) loss or separations. In cases where patients are unwilling to report these issues to mental health clinicians, collaterals may have no idea these are the warning signs they should be on the lookout for when assessing risk of suicidality. Even something as simple as a guided checklist or handout may be enough to help collateral reporters identify these signs that are second nature to clinicians but unknown to the general public.

Others have identified key factors identified for assessing threat to others, including 1) history of violence, 2) violent threats or fantasies, 3) history of victimization, 4) severe mental illness, 5) access to firearms, 6) social marginality, and 7) cultural scripts around aggression or violence (McNiel, 2009; Newman & Fox, 2009; Meloy, Hoffmann, Guldemann, & James, 2012; Wike & Fraser, 2009). Clinicians have been urged to consider involving collaterals in these assessments as well, because some of these factors may not be openly disclosed by a patient or may require a second hand observer to describe the nature and degree of any one of them (Heilbrun, et al., 2009). Collaterals likely need to be trained to gather facts about these items, rather than offer their perceptions or opinions. For stance, those who are asked about a patient's

likelihood to misuse firearms may offer biased estimates as a result of the Halo Effect because of the vague nature of the question. However, those asked specifically about a patient's access to firearms display less bias, simply due to the fact that the question does not require interpretation that could be clouded by bias.

For therapists, it is also important to remember that suicidality and harm to others only represents a portion of all possible risky behaviors in which a patient may engage. Additional self-detrimental behaviors include substance abuse, disordered eating, problem gambling, and poor decision making, among many others. Going forward, it may be desirable for some clinicians to assess their patients' level of risk for one or more of these risky behaviors. The present study suggests that one way to get accurate information may be to include assessments made by collateral reporters, but they should be considered with the Halo Effect in mind. Training or guiding collaterals through their assessments may be the key to increasing the utility of the information they provide.

Conclusion

Ultimately, we believe that a partnership or community-based approach can lead to greater satisfaction with the treatment process and an increase in favorable outcomes, especially among patients who desire a collaborative approach involving their friends, family, and treatment providers. Although untrained collateral reporters are sometimes expected by the general public to have considerable insight into patient's inner lives, the results of this study suggest that collateral reporters, even those closest to patients, rely heavily on a single set of rudimentary prediction tools: perceived closeness and liking. These results contribute to an existing literature that suggests that the best risk assessments generally involve a variety of sources of information, and they include assessment of a number of variables. We believe that

collateral information can be used to supplement existing assessment by clinicians, but we also advocate the importance of guiding collateral assessment practices to avoid bias and increase the value of the information they provide.

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Appendix A

	Tell us a little about your relationship						
	Completely Disagree	Mostly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Mostly Agree	Completely Agree
We know each other well							
We are close							
We are in frequent contact							
We've known each other a long time							
We feel comfortable around each other							
We like each other							
If something was wrong with one of us, the other would know about it							

Appendix B

	How likely is it that you (they) would do any of the following?						
	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely Nor Unlikely	Somewhat Likely	Likely	Very Likely
Eat too little on purpose							
Binge eat and/or purge after eating							
Isolate themselves or withdraw socially							
Gamble too much							
Drink too much alcohol							
Misuse <u>legal</u> drugs							
Use <u>illegal</u> drugs							
Physically hurt themselves on purpose (<u>not a suicide attempt</u>)							
Physically hurt someone else on purpose							
Commit suicide							

Table 1
Collateral observers nominations by patient gender

<i>Reporter Type</i>	<i>Female Patients</i>	<i>Male Patients</i>
Mother	28%	32%
Father	7%	0%
Romantic Partner	53%	55%
Child	5%	3%
Sibling	5%	3%
Friend	2%	3%
Ex-Spouse	0%	3%

Table 2
Correlations between assessments made by patients and Reporters

	<i>Time 1</i>	<i>Time 2</i>
	Pearson Correlation	
Relationship	.363*	.506†
Risk	.538‡	.559†

* $p < .05$, † $p < .01$, ‡ $p < .001$

Table 3

Descriptive statistics and correlations of relationship assessments made by patients and collateral reporters

	<i>Time 1</i>			<i>Time 2</i>		
	Patients M(SD)	Reporter M(SD)	r	Patients M(SD)	Reporter M(SD)	r
Know each other well	6.62(.70)	6.65(.60)	.22	6.36(1.36)	6.23(1.48)	.36
Are close	6.46(.95)	6.58(.79)	.19	6.57(0.80)	6.03(1.71)	.46*
Are in frequent contact	6.73(0.58)	6.64(.71)	.20	6.5(1.25)	6.06(1.71)	.53†
Have known each other a long time	6.71(0.70)	6.62(1.19)	.55‡	6.52(1.27)	6.32(1.63)	.36*
Know each other well	6.53(0.84)	6.62(0.77)	.52‡	6.26(1.40)	6.32(1.51)	.53†
Like each other	6.59(0.74)	6.64(0.85)	.21	6.48(1.33)	6.21(1.67)	.49†
Would know if something was wrong	6.36(1.05)	6.38(0.74)	.13	6.07(1.46)	5.86(1.50)	.52†
See eye to eye on most things	5.34(1.47)	5.67(1.14)	.59‡	5.12(1.55)	5.49(1.40)	.46*

* $p < .05$, † $p < .01$, ‡ $p < .001$

Table 4

Descriptive statistics and correlations of risk assessments made by patients and collateral reporters

	<i>Time 1</i>			<i>Time 2</i>		
	Patients M(SD)	Reporter M(SD)	r	Patients M(SD)	Reporter M(SD)	r
Eating too little on purpose	2.71(1.90)	2.30(1.97)	.37*	2.79(1.69)	2.34(1.85)	.74‡
Throwing up after eating	1.33(1.10)	1.26(0.97)	.64‡	1.19(0.59)	1.40(1.12)	.60‡
Withdrawing socially	3.22(2.03)	3.15(1.96)	.55‡	3.64(1.82)	3.03(1.86)	.65‡
Gambling too much	1.69(1.43)	1.34(0.87)	.14	1.71(1.29)	1.54(1.01)	.04
Drinking too much alcohol	2.49(1.83)	2.94(1.84)	.61‡	3.00(1.59)	2.86(1.99)	.46*
Misusing legal drugs	1.47(1.24)	1.92(1.41)	.21	1.41(0.91)	1.77(1.33)	-.02
Misusing illegal drugs	1.76(1.67)	2.00(1.46)	.41†	1.52(1.29)	1.94(1.41)	.38*
Physically harming himself/herself	1.50(1.21)	1.53(1.20)	.40†	1.41(0.99)	1.49(1.17)	.10
Physically harming someone else	1.39(0.85)	1.72(1.43)	.07	1.24(0.73)	1.54(1.07)	.39*
Attempting suicide	1.19(0.73)	1.53(1.25)	.44†	1.10(0.30)	1.18(0.72)	-.07

* $p < .05$, † $p < .01$, ‡ $p < .001$