

# **Digital Information Support for Domestic Violence Victims**

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With domestic violence directly impacting over 5 million victims in the United States annually, the growing e-health and e-government networks are developing digitally based resources for both victims and those who aid them. The well-established community information and referral role of public libraries dovetails with this digital referral network model; however, no study of the actual service provided by public libraries is available. This examination of e-mail reference responses to requests for safe-house contact information revealed major gaps in cyber-safety awareness and uneven implementation of professional standards for virtual reference service. Implications for information, and future research are discussed.

#### Introduction

This study examines the nature of public library support for domestic violence (DV) victims seeking referral to community information resources via e-mail reference service. Domestic violence remains a significant criminal problem with substantial personal, economic, and social consequences. Although the information components of victim support services are increasingly promoted through digital channels, no post-Internet analysis of those information efforts has been made. (The landmark Harris and Dewdney, 1994 study, completed in Canada in 1990, still stands as the only substantive analysis of the formal information systems in support of DV victims.) The public library's e-mail reference service can play a useful role in providing community information and referral in the context of everyday life information seeking (ELIS). This study examines the nature of this potentially valuable bridge between DV victims and the services designed to aid them.

## Impact of Domestic Violence

Domestic violence (DV) continues to have critical personal, health, and economic consequences for victims; it also has a serious and complicated impact on society. Almost 5.3 million women in the United States are victimized by intimate partners every year through stalking, verbal abuse, sexual assault, rape, beating, and murder (Centers for Disease Control, 2003). Although abuse reports more commonly involve young women and women who live below the poverty line, domestic violence crosses all social, economic, educational, racial, and cultural boundaries (Heise & Garcia-Moreno, 2002).

Although the vast majority of domestic abusers are men (husbands, roommates, and boyfriends) attacking women, about 15% of domestic violence is perpetrated within homosexual couples or by women against men (Bureau of Justice, 2003). Women are far more likely to be coerced, stalked, injured, hospitalized, sexually assaulted, raped, and murdered than men; girls and women who are pregnant or caring for children are particularly vulnerable to violence of all kinds. The gender-neutral term *domestic violence* should not obscure the nature of the crime.

The economic and social consequences of this crime spread beyond the immediate victims in terms of the health care, educational, and business costs. For example, women with a history of domestic violence victimization have 60% more health problems than do women with no history of being abused (Campbell et al., 2002), a fact that helps account for the nearly \$4.1 billion in direct medical and mental health costs as well as the nearly \$1.8 billion in lost productivity due to domestic violence (Centers for Disease Control, 2003). In households with children, forty to sixty percent of perpetrators also abuse their children (Goelman, 2004), who then have an increased risk of developing mental health problems, failing at school, and becoming violent themselves (Nelson et al., 2004).

# Information Support for Domestic Violence Victims

The horrific impact of this crime on communities as a whole makes a strong community response imperative. Law enforcement, social services, and governmental agencies, including public libraries, recognize the need to provide a network of services and resources to help victims cope with or escape from abusive situations. These agencies produce information in multiple formats as part of formal information systems that often involve a deliberate partnership

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between government and private agencies (Kristin, 2004). Federal, state, and local governments mount Web sites, offer e-mail support, and staff hotlines, as do nongovernment organizations. Literature mailings, library talks, information kiosks (Slack & Rowley, 2004), Web sites, and other information distribution systems are set up to reach people in all educational, economic, ethnic, racial, linguistic, and citizenship conditions (Domestic Violence Initiatives, 2003). For social/family connections, medical personnel, and clergy, these formal structures often serve as the referral point. Numerous studies confirm that victims prefer using informal information and support networks (Bowker, 1983; Goodkind et al., 2004; Grayson & Smith, 1981; Harris, 1988; Harris & Dewdney, 1994; Harris et al., 2001; Peckover, 2003; Wathen & Harris, 2003); however, formal information systems are used heavily by members of these informal support networks, as well by the victims, even though they might prefer informal information. The growing use of the Internet as a major information resource for health queries already reflects digital divide concerns in which wealth and education support information access (Cotton & Gupta, 2004). When put into practice, the values-based ethos of information studies promotes a strong response to both concerns (Beghtol, 2005); culturally aware and user-responsive information systems should certainly address preferences for personalized information and somewhat mitigate the impact of the digital divide.

As state and federal governments move towards using the Internet as a primary channel for social service support, a drive for efficiency combined with limited funding may undercut the effort to structure systems to best meet diverse needs among people with various levels of practical and intellectual access to the Internet (McNeal et al., 2003; Postmus, 2004). Because these systems are designed to support the work of first-line responders, improve interpersonal connections, and assist the victims themselves, it is imperative that the systems be genuinely useful to all of these groups.

An effective system is designed so that its impact on DV victims and DV support structure is maximized in terms of information needs and user response. Which of the many information needs does it meet? How do government, health, and social service providers, as well as victims, respond to and make use of such systems? Information needs include the long-term educational needs (Fidishun, 2001; Hillier, Mitchell, & Millwood, 2005) that victims might have as they move through the escape and recovery process. User response includes issues of cyber-security and accessibility for users with, for example, the vision and mobility impairments (Hoffman, Grivel, & Battle, 2005) that may result from abuse. These and other questions merit careful study so that the limited funds available to help domestic violence victims can be spent as effectively as possible.

This study is a step towards evaluating the efficacy of the formal information structures designed to meet the information needs of DV victims. By analyzing the support provided by public libraries, this study evaluates the one segment of the formal information structure that is designed to bridge all the others and provide personalized service directly to the user.

# Related Research

The literature on information support for domestic violence victims is limited but several works do provide insight. Roma Harris and Patricia Dewdney's (1994) *Barriers to Information: How Formal Help Systems Fail Battered Women*, conducted in Canada, used James Krikelas' (1983) model of information-seeking behavior and Brenda Dervin's (1992) sense-making model of solving information problems. Combining a multi-community household survey with substantial agency interviews, the study triangulated complex data-gathering techniques (Harris & Dewdney, 1994, pp. 61–69) to provide an in-depth analysis of formal information support systems designed to help DV victims.

The findings regarding both information needs and information resources were disheartening at best. Even without the availability of e-government or e-health resources, a total of 23 different agencies or services were expected to be able to provide help in solving 18 separate problems (Harris & Dewdney, 1994, pp. 79–80). Not surprisingly, a number of basic components in the formal information structures failed to connect people with the support they sought or needed. For example, the telephone directory proved problematic for the information seekers. The subjects surveyed considered 31 different possible entries they thought might lead to help, but most of those were not actually used by the directory or they led to an inappropriate source that was not prepared to provide any assistance (Harris & Dewdney, 1994, p. 92).

These findings emphasized the fact that system effectiveness depends, in large part, on two factors-one cognitive, one affective. From a cognitive perspective, the organizational complexity involved in navigating multiple information resources requires a strong congruity between the helpseeker and the helper in their shared understanding of the problem and of the information sought. Negotiating the information need depends, in great part, on a clear understanding of which of the many problems faced by DV victims is currently uppermost. Assuming that both the underlying problem and the information sought are well understood by both parties, a critical affective dimension also impacts the information search. The helper's willingness to offer concern, support, and respect to the help-seeker can determine whether assistance continues to be sought as well as the extent to which information is determined to be trustworthy. Although some components of formal information systems handle both cognitive and affective factors well, others (notably some police and those agencies which do not recognize DV support as a primary service responsibility) could be "inadequate, inappropriate, or even damaging to abused women" (Harris & Dewdney, 1994, pp. 130-131).

The only other analysis of information seeking and use by battered women is Jennifer's Dunne's 2002 proposal for an expanded model of the "person-in-situation" model. First explored by Brenda Dervin (1992) and developed by Bryce Allen (1996), this model positions information needs in a social and situational context in the expectation that context is a powerful influence on information-seeking behavior, preferences, and experiences. Dunne's enhancement of the model focuses on the progressive nature of help seeking in a domestic violence situation. By applying the basic personin-situation model to the new situations that women face over time, Dunne suggests that a more complete and accurate understanding of information needs will develop (2002, p. 344). The value of this model lies in its holistic examination of situations (i.e., particular moments or information-need triggers), persons (i.e., the affective and cognitive experiences that color information-seeking expectations and selfefficacy), and responses (i.e., the techniques and strategies used in information encounters, seeking, and avoidance). The complexities of dealing with domestic violence require this holistic approach. For example, information-need triggers vary as much in their form as they do in their impact. Abusive acts are one form of need trigger but a beating might trigger a need for a safety plan whereas stalking might trigger a need for legal information. Threats to independence are another form of need trigger; job loss, however, triggers different information needs than does lack of housing. Only a personin-situation model can fully address these complexities.

### Theoretical Framework

The theoretical framework for this study is rooted in Reijo Savolainen's (1995) work on the everyday life information seeking (ELIS) model. The ELIS model posits that active information-seeking behavior, as opposed to information encounters (Erdelez, 1997; Williamson, 1998), can be used with varying degrees of success to support problemsolving that maintains or develops a mastery of life, as opposed to meeting imposed professional or academic needs (Savolainen, 1995; Savolainen, 1999). With its roots in Brenda Dervin's theory of sense-making as an active, constructive process of the individual, ELIS places the information search trigger or impetus in the context of the individual's affective and cognitive states, and then juxtaposes that combination with the information structures, systems, and strategies that the individual considers viable. Although acknowledging the role of passive attention to and passive seeking of information (Wilson, 1997), the social-cognition approach of ELIS grounds its analysis in the discourse of context as individuals shape their own understanding of a source's value in terms of their internalized response to its affective and cognitive impact (McKenzie, 2002; Tuominen & Savolainen, 1997). The ELIS theory states that searching behaviors vary in relation to four dimensions: information needs (e.g., need to find advice on how to file for divorce), affective states (e.g., optimism or pessimism regarding the Internet's potential usefulness), cognitive mastery (e.g., substantial knowledge or lack of knowledge of Internet search techniques), and available resources (e.g., ready access to the Web). The more familiar and easily accessible sources are most commonly used in ELIS experiences (Savolainen & Kari, 2004, p. 431) therefore understanding what factors move a source into that category is important in the design of formal information support systems.

Applying the ELIS model to domestic violence information needs requires particular attention to the victim's use of everyday social networks and to the role that Internet-based information systems play in the lives of the individuals who form those networks. The ELIS model notes that "people's social networks may have an important influence on the information to which they have access and key individuals within these networks may facilitate or constrain information exchange" (Harris & Wathan, 2006). For some DV victims, these social networks are increasingly supported by and experienced in cyberspace. For all DV victims, the increasing use of the Internet as a means of distributing social service support can be problematic (Theofanos & Mulligan, 2004). Cyberspace, social networks, and egovernment developments have implications for DV victims in the context of their ELIS experiences.

Cyberspace, social networks in health care contexts, such as discussion lists and computer-mediated communication options, are making significant impacts on self-help and social support structures (Berger, Wagner, & Baker, 2005; Haker, Lauber, & Rossler, 2005; Josefsson, 2005; Owen, Klapow, Roth, & Tucker, 2004). They tend, however, to privilege "lay knowledge and experience over the 'expert' knowledge of health and welfare professionals"-with mixed results (Burrows, Nettleton, Pleace, Loader, & Muncer, 2000, p. 95). From the theoretical perspective of ELIS in the area of health, information encountering, foraging, and sharing have a somewhat self-reflective aspect (Loader, Muncer, Burrows, Pleace, & Nettleton, 2002) in that the "self" is the lens through which information is viewed. The degree to which information relates and is useful to the self serves as the criteria against which it is judged. Given the rich contributions of health and social support service chat rooms to ELIS, domestic violence information support structures must address these cyberspace-based social networks.

In addition, the increasing use of e-government as a conduit for social services impacts ELIS experiences (Becker, 2005). Cyber-safety, for example, is a critical issue for DV victims and those who assist them, but e-government continues to struggle with means of protecting privacy (Holden & Millett, 2005). As government agencies and the private companies to which their work is outsourced make increasing use of technology to track their clients' progress as part of increased accountability measures, the balance between privacy and efficiency becomes more difficult to maintain (Culnan & Bies, 2003). The effort is too new to support the consistent use of standards and design protocols that might make navigation easier for information-seekers who must move across local, state, and federal areas of responsibility (Gil-Garcia & Pardo, 2005), although the interactive aspect of e-government structures does appear to help some people move forward in their problem-solving (Reddick, 2005).

In all of this work on ELIS, e-health, and e-government, however, no studies have examined the domestic violence population. The growing e-health movement requires a more nuanced understanding of the human connections between Internet-based information and problem-solving (Nettleton, 2004; Nettleton et al., 2004) from the perspective of the private individual working on an everyday life situation.

# The Public Library

One element of this information patchwork is the public library. A long-time provider of community information and referral services, the public library can, and often does, serve as a hub for connecting individuals with appropriate governmental, legal, and social service agencies (Dewdney, Harris, & Lockerby, 1996). Three of the most important professional service guidelines for e-mail or any other media for general reference service—usable information, respect for the individual, and enhancement of trust—represent the very qualities that are most effective in meeting the needs of DV victims (Reference and User Services Association, 2004).

E-mail, increasingly available as a means of contacting the public library, can be both effective and hazardous for those DV victims whose circumstances make it an option at all. It can be effective in that no face-to-face encounter is required, a factor that permits victims to avoid the feeling of being shamed or judged for their problem. It can be hazardous in that Web-savvy abusers can readily identify their victims' searches, making it essential that proper cyber-safety warnings are given. (For examples of such warnings, see the pop-up window at Turn Around, n.d., and a warning on the homepage at the American Bar Association, n.d.) Any effort to gather information that may lead to escape must be hidden from abusers because many will become more violent and even homicidal if they realize that their victims are working towards escape (Anderson et al., 2003; Campbell et al., 2003; Elizabeth, 2003). Although e-mail reference is not physically, cognitively, or affectively available to all DV victims, those who do use it certainly merit the most-effective, productive, and supportive response professionally possible.

## Research Method

As a first step in understanding the contextualized information needs of DV victims, this study addresses the following research questions:

- What are the factual characteristics of the information provided to users inquiring about DV shelters via e-mail at public libraries in large American cities?
- What level of cyber-safety guidance is offered to users inquiring about DV shelters via e-mail at public libraries in large cities?
- What level of affective contact is offered to users inquiring about DV shelters via e-mail at public libraries in large cities?

Because this is the first examination of public libraries' e-mail response to reference questions on DV shelters, no formal hypotheses were formed. Instead, the actual responses were analyzed, as described below, according to standard protocols for discourse analysis. Discourse analysis (see, for example, Armstrong, 2002; Foucault, 1979; and Potter, 2004) approaches such written communication as contextualized phenomena to be interpreted and analyzed to identify the underpinnings, implicit assumptions, and hidden agendas of the discourse. In the present case, the goal was to evaluate the extent to which e-mail responses from larger public libraries met professional guidelines and known parameters for supporting DV information-seeking in terms of basic response metrics, cognitive content, and affective content.

## Data Gathering

The sample consisted of the primary libraries in the 100 most populous cities in the United States as determined by the 2000 census (U.S. Census, 2000). Given the census regulations, many of these cities actually included at least two substantial and totally separate public library systems. For example, the Los Angeles area actually included Long Beach and Santa Ana whereas the Chicago area included Naperville and Joliet. The original sample, therefore, consisted of 179 city libraries. Of those, 15 did not have e-mail access at all (some did have chat available), five did not have e-mail available to people who lacked their city's library cards, one was closed due to hurricane damage, and seven shared an e-mail service with another library in the pool. Therefore, the original 179 libraries dropped to a final sample of 151. Of the 151, 27 libraries did not respond at all, leaving 124 replies.

The 124 responding libraries came from a diverse array of large American cities in all areas of the country.

As indicated in Table 1, libraries from 13 states sent responses from one city each; libraries from 21 states sent responses from two to seven cities; libraries in Florida and Texas sent nine each and libraries in California sent responses from 18 cities. In 37 states libraries sent responses from at least 1 city; only 6 states in the original pool of those with the largest cities had libraries that could not be reached via e-mail or failed to respond at all (DC, HI, IN, KS, NM, and RI). This sample was intended to garner data from libraries in the larger cities where both public libraries and DV shelters were likely to be available. The sample was not intended to be a representative sample of all U.S. public libraries because many of the smaller communities would be more likely to lack libraries and/or DV shelters.

TABLE 1. Number of cities from responding states.

Cities	State(s)	
1	AL, DE, GA, ID, KY, MD, MO, MS, NE, NV, OR, WI, WY	
2	AR, IA, LA, ME, OK, SC, UT	
3	AZ, CO, IL, MI, MN, WA	
4	NC, TN	
5	MA, PA, VA	
6	OH	
7	CT, NY	
9	FL, TX	
18	CA	

The data gathering process involved an e-mail account set up on Earthlink for a fictional woman and, from that account, a single e-mail request was sent to each library. When unanswered, the request was not repeated because the purpose of the study was to examine the responses that users actually receive, and sometimes the "response" is no response at all.

When a library required a user to provide specific information before an e-mail could be posted, the information was fabricated where possible, as in the case of a request for a local zip code, and many requests were answered with the word "private," as in the case of an address, phone number, or library card number. If those fabrications were not accepted, then no further contact was attempted.

The message read as follows:

Hello,

I need to know something for a friend who might be having a problem. Can you send me the e-mail address and phone number for a local safe house for battered women? If there's more than one, then can you give me a web site that lists them or a phone number to help? I'll e-mail this to her.

Thank you for your help. Rita, [name of city]

The message deliberately requested an e-mail address, mentioned a Web site, and explained the intention of forwarding the material to a potential victim via e-mail in an effort to elicit cyber-safety warnings. The information requested was factual and brief.

The ethics of unobtrusive data collection are always complex and, in this case, focused on the balance between what the data collection cost the librarians and what the findings might do for those the librarians serve. The deception that led the librarians to answer the question was, unfortunately, essential to the study's goal of characterizing the nature of reference responses. The effort expended by the librarians was (a) minimal in that only two pieces of readily available, factual information were requested, and (b) worthwhile in that locating the information once might make it more readily available in the future were it needed by an actual user.

#### Data Analysis

The responses from libraries were captured as Word and text-only documents. In the latter format, they were available for data analysis using HyperResearch 2.6 (2003). The broad coding themes generated for the analysis were drawn directly from the literature on domestic violence discourse (e.g., the value of interpersonal connections denoted by, for example, an expression of support), cyber-safety concerns, and reference service guidelines.

The individual codes within these broad themes were drawn directly from the actual data. For example, one of the basic response themes concerned acknowledgement of the question. Codes developed around that theme noted when acknowledgement was (1) immediate, (2) within one day, or (3) missing entirely. One of the cognitive content themes concerned the form of contact information provided in response to the request for an e-mail address and phone number. The codes that developed around that theme noted (1) postal address, (2) uniform resource locator (URL), (3) e-mail address, (4) phone number, and (5) combinations of those forms. One of the affective themes concerned the use of a supportive statement and the codes that developed around that theme included only two—the provision of a supportive statement and the lack of supportive statement. Ultimately, 71 mutually exclusive codes were established and applied consistently.<sup>1</sup>

When all of the cases had been coded, 12 of the 124 cases in which a full response was provided were chosen at random and reopened as entirely new cases in new digital files. They were then recoded without any reference to their original coding using the same coder and same coding taxonomy. The two sets of codes were then compared for each of the 12 cases to identify any inconsistencies in code application. That code–recode comparison revealed a 99% consistency in coding, a level that is well above the standard 90% rate (Miles & Huberman, 1994, p. 64).

# Findings

The major themes broke down into three large areas: response parameters, cognitive content, and affective content. Response parameters consisted of acknowledgements of the actual e-mails and response time. The cognitive content included characteristics of the information provided such as the number, type, and content of the information sources provided in the answers, as well as efforts to address cyber-safety concerns. The affective content included elements of interpersonal communication, specifically the four standard components of the reference response that are designed to strengthen interpersonal connections namely addressing the reply, inviting additional queries, offering support, and signing the reply.

#### Response Parameters

Echoing Shannon and Weaver's fundamental communication model, the two response parameters (i.e., the acts of acknowledging receipt and sending a response) are basic to any communication. Acknowledging receipt of e-mail reference requests helps assure users that a system is in place to deal with their information needs. Some reference software sends such a confirmation automatically and immediately. In this study only 28% of the libraries (43 of the 151) had an automatic and immediate response; 58% (87) had no acknowledgment at all. (The remainder acknowledged later in the day or a delivery failure notice was received.)

Of course, the primary response indicator was whether an actual answer to the question was received and, as mentioned before, 27 of the 151 libraries did not send one.

<sup>&</sup>lt;sup>1</sup>For a complete list of the codes, please contact the author.

TABLE 2.	Response parameters	on original 1	51 libraries.
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Time period	Acknowledged	Answered
Automatic	43	
Same day	12	50
Next day	0	62
2 days	0	5
3 days	0	2
4 days	0	0
5 days	0	1
6 days	0	2
7 days	0	1
8 days	0	1
Never	87	27
No e-mail/form access	9	
Total	151	151

A graphic representation of those data indicates the rapid response from most libraries (Table 2). Of the 124 who did reply, 90% answered within one working day (50 on the same day and 62 on the following day). This rapid response rate does somewhat mitigate the lack of acknowledgement in that 71% of those libraries failing to acknowledge the question did send an actual answer within one working day (Figure 1).

#### Cognitive Content

The cognitive content consisted of the factual information provided by the libraries, including the number, type, content, and nature of replies. A wide variation in the actual content reflected the available resources but also the service ethos of the individuals or libraries involved.

*Number of resources.* The question specifically asked for a very limited amount of information, a common approach to handling high-stress information problems (Bar-Tal & Spitzer, 1999; Case, Andrews, Johnson, & Allard, 2005). Although several replies clearly consisted of a massive cutand-paste from a database without due regard for the user's request for a limited response, 65% provided one to three resources. A *resource* was defined as any discrete organization



FIG. 1. Response parameters.

TABLE 3. Number of domestic violence (DV) resources per reply.

Number of resources	Number replies	% Replies
1–3 local/regional DV resources	81	65.0
4-9 local/regional DV resources	31	25.0
10 or more local/regional DV resources	8	7.0
Only URL to a Google search on local/regional DV resources	1	0.5
Only URL/phone to national DV referral agency	1	0.5
Only URL/phone to all-purpose, social service referral agency	2	2.0
Total	124	100

*Note*. URL = Uniform resource locator.

or reference tool to which the user was referred. For example, a safe-house with its own hotline, a stand-alone hotline, and the United Way database would each be counted as a single resource (Table 3).

The longest reply consisted of 18 undifferentiated DVrelated entries, complete with lengthy lists of subject terms applied to each resource, from a "community services directory" totaling 4600 words.

Further detail on the nature of the resources follows.

*Contact information formats.* The request for specific contact information formats (i.e., a phone number and an e-mail address, with a URL as a backup) proved to be problematic. As anticipated, relatively few shelters provide e-mail access. Because the libraries can only provide the information that is available to the general public, what really mattered was acknowledging the lack of requested format(s) where appropriate and providing alternative contact formats where possible (Table 4).

Only two of the 124 libraries responded with the phone and e-mail information requested, but 74% did provide at least two means of contact. Nine libraries explicitly noted that they did not have e-mail addresses to provide, but 84%

TABLE 4. Contact information formats provided.

Contact format	Number	%
Phone and URL only	35	28
Phone only	24	19
Phone, URL, and postal	20	16
Phone and postal only	17	14
URL only	9	7
Phone, URL, postal, and e-mail	9	7
Phone, e-mail, and URL	6	5
Phone and e-mail only	2	2
Phone, e-mail, and postal	2	2
E-mail only	0	0
Postal only	0	0
Total	124	100

*Note*. URL = Uniform resource locator.

neither provided the requested format nor acknowledged its unavailability.

In addition, six libraries entirely missed the fact that the requested "address" was for e-mail. They provided brief explanations instead of e-mail addresses; for example, Response 76 wrote, "For safe houses to be 'safe', they never release their addresses to the public." Whereas potentially useful information, this lesson indicated a misreading of the original question, an act which does not indicate respect for the question or encourage confidence in the professional ability of the responder. In addition, the tone could be taken as condescending in that few people appreciate getting an unsolicited lesson rather than or in addition to the requested facts. Finally, the actual information may be correct locally but is certainly not the universal fact implied by the wording because some shelters do have their street addresses well publicized in an effort to reach out to those who need them; keeping unwanted visitors out is accomplished through mechanisms other than hiding the shelter location.

Shelter/referral request. The e-mail requested basic information for a shelter or a referral agency, and most respondents provided one or both items. Fifty percent of the libraries provided contact information for a shelter that was clearly identified as such. Most others listed a resource that may or may not have been a shelter, the information being too sparse or vague to make an immediate determination possible. In addition, 29% provided phone or URL contact information for a referral service explicitly described as such and 46% provided the phone number of a "crisis line" or "hotline," many of which probably provide referral services.

Nine replies failed to provide the requested information, offering instead resources that the user could wade through or search independently. One library provided, for example, a national hotline and the URL for a database of local social service agencies; seven other libraries provided only the URL for their local social services database. One library simply sent the URL for the outcome of a Google search. "The following is a search result we did in Google's Local search engine: [URL] You can scroll to check locations. You can also match locations you find useful, with the map on the right side. We hope this information is useful" (Response 68).

The librarians' expectations of users that are implicit in this type of self-service response certainly ignore most service guidelines. The expectations regarding, if nothing else, user information literacy skills demand a great deal from users that they may not have to give. To act on replies such as this, the user must have ready access to the Internet, the ability to use the Web, a willingness to do more searching, and the ability to make productive relevance judgments. While the responding library staff may have all those attributes, the user's request for limited, factual information would seem to imply weaker rather than stronger skills.

Accuracy of information: URLs. Analyzing the accuracy of the information provided within the limitations of ethical

guidelines connected with studies of this kind required a delicate balance between the study's research priorities and the DV shelter's service priorities. Any contact with the actual shelters by phone, e-mail, or postal mail would take staff time away from serving DV victims in need and the resulting snapshot of accuracy did not appear to justify that loss of time, particularly because so many of the answers appeared to come from databases created by the United Way, local government, or social service agencies. The URLs, however, could be tested without imposing on anyone.

Seventy-six responses included 155 URL links for specific resources. Searching via Internet Explorer for the Web sites led to the following information: 144 accurate links (93%), 7 dead links (5%), 3 incorrect links (1.5%), and 1 moved link (0.5%). The dead links might have been correct when originally sent. The accurate links did indeed lead to either the sites named in the reply or, when no name was given, to a site which related to DV.

The unnamed URLs could be problematic for follow-up later; without a name, a moved site could be difficult for a naïve user to locate. Fully 22% of respondents neglected to provide the name of the referral source or any aids on navigating to it. These untitled URLs were frequently added onto a list of other fully identified resources (e.g., Response 9's "Here are a couple of other URLs as well: [URL] [URL]") but were also simply listed as the main text of the message (e.g., Response 71's "Helpful websites: [URL to safe house] [URL to PDF] [URL to journal article]").

*Instructional content.* Eleven libraries included some instructional component in addition to their information, usually instructions on how to navigate a referral service Web site. For example, Response 91 provided instructions of dubious value to a stressed person, offering the following five-step process, including a special code, to reach a list of 52 agencies.

Online, you can search for other agencies that offer assistance by going to: 1. [URL] 2. Click on Get Help 3. Click on Search Our Online Directory 4. In the box below "Search by Service Code," type in 1217000 5. Click the box next to [name] County (if it is not already checked) You should get a list of ten agencies that help with domestic violence issues. Those that say "Confidential Location" are shelters. Alternatively, from step 4 above, you can click on the down arrow in the box "Search by Service Code," and select from the drop-down menu "Search by: Description of Problem," then type domestic violence in the search box. This will retrieve a list of 52 agencies in [name] County. You will need to scroll to see all 52 listings.

The simpler instructional replies provided guidance on where to start, such as Response 2's statement that "When searching for social services in [name] County, there are two very good sources to begin with. They include [book title] and its companion Web site, [URL]."

*Law enforcement content.* Two law enforcement issues arose in terms of who responded and the focus of other responses. In three cases, the library was not the agency that

actually sent the final reply. Although the e-mails were sent to these libraries, two were forwarded to the city's social service agency and one was forwarded to the local police department. In these three cases, those non-library agencies actually sent the final reply. Five of the replies included, among other resources, the local police department. For example, Response 23 provided only a URL.

Dear Rita:

Here is the city webpage for [name] and other shelters.

[URL of city police Web site listing of DV shelters]

Good luck and good health to you and your friend.

Sincerely, General Reference Department [Name of city] [Phone number]

In some cities, the police departments list DV shelters directly on their Web sites but, with no explanation of that connection, a user might be disconcerted to follow a recommended link only to end at a law enforcement Web site. Certainly having the police answer an e-mail sent to the library could be alarming for some.

*Use of 211 system.* The relatively new use of the 211 phone number (13%) and the United Way social services database (22%) were also included in several replies. Response 102 was typical, listing the 211 number as an addition to an already complete response: "You may also wish to dial -211- for information about other programs that are available in the [name] area." As this system becomes as much of an information norm as the 911 system, referrals to this system may become more common, and users may become more comfortable.

*Agency descriptions.* Although several responses included some description of the agencies, many listings were so sparse that there was no indication of what could be expected beyond, in some cases, the basic distinction between a shelter and a referral agency. Response 72, for example, only implies referral to a shelter but provides no other data. "The contact information for the [name] Home is what you may be looking for. [name] Home [address] [phone] [e-mail]."

Because the original information request did not ask for descriptive information, this simple approach might have been a deliberate choice but it is worth noting that this choice was made in 78% of the responses.

Of the replies that did include descriptions, most appeared to come directly from agency Web sites and/or social service databases. These often included critical information, such as support for children, languages spoken, and long-term support services. Response 166, for example, provided brief descriptions with such useful information as "Will take women with or without children and/or pregnant. Certified as a domestic violence shelter." Others included more evaluative descriptions, occasionally based on personal opinion. Response 155 provided only the following:

Dear Rita,

Please contact [organization name] in [county name], [phone]. They can evaluate what's going on and either refer your friend to a social service agency or another shelter. Thanks for asking and e-mail back should you have further questions. This is a longtime area shelter (50 years or more) and I think it's the best and least invasive place to start.

Sincerely,

[first name]

The majority of the 22% of responses that included descriptive information drew the information from formal, publicly available sources.

*Cyber-safety content.* The single most critical factor in these replies, however, was the complete lack of basic cyber-safety awareness. Only one reply included any mention at all of the potential danger of seeking or sharing information on escaping domestic violence via the Internet. Even that one reply included the information as a by-product of the way in which the question was answered, namely by making a cut-and-paste from the local safe house Web site, which did include the cyber-safety information buried in much other information. The information was not highlighted by the library.

Given the fact that the reference request clearly stated that the results would be e-mailed to a possible DV victim, some basic information on cyber-safety should certainly have been front-and-center in all the replies. The request for e-mail and URL information were additional signals that the user needed a better grasp of the potentially dangerous consequences of leaving a clear trail for an abuser to follow. The possibility that the user might have been asking for herself, using the "friend" as a protective front, was a third reason for starting with a basic lesson on or referral to cyber-safety information. The complete lack of this crucial information may indicate that librarians have not recognized the need for it in DV situations.

*Affective content.* Both behavioral guidelines for reference service (Reference and User Services Association [RUSA], 2003, 2004) and research on information support for DV victims encourage the use of four discourse techniques for providing effective service: addressing the reply, inviting a return, offering support, and signing the reply. In light of e-mail's inherent limitations on interpersonal communication cues, the socioemotional support cues are particularly critical (Radford, 2006).

Fully addressing an e-mail provides an acknowledgment of the individual. Sixty percent of the replies did so. Some simply read "Rita" whereas others were more formal ("Dear Rita") or more friendly ("Hi Rita"). Eleven included some form of address but lacked a name, as in "Hi" or "Hello." The fact that 40% were not addressed at all is certainly unsettling, particularly in light of the generally accepted precept that greeting a user is essential to building trust.

Inviting a user to return or to ask another question is another standard piece of the reference interview process. In the digital world, where the user has no control over who receives an e-mailed question, that encouragement is particularly important. Nevertheless, 75% of the replies failed to offer any invitation at all for further contact. Of those that did issue an invitation, 21% invited another question, 3% encouraged a call to the library, and 1% encouraged an in-person visit. Given the long-term information needs of DV victims, clear invitations to return with additional questions are essential. The fact that so large of portion of the responses lacked this simple, basic element might indicate discomfort with the DV situation and all its complex problems.

Offering some level of affective support to individuals in painful situations indicates respect for their need and an acknowledgement of their situation, both of which are essential to establishing trust. In this study, only 44% of the replies included any statement of support. Some phrases indicated a personal expression of support, such as Response 2's "I hope this information is helpful to you and your friend" and Response 94's "We are sorry to hear about your friend's problem." Others were equally personal but more informal, such as Response 3's "hope this helps!" and Response 51's "Best of luck." Some indicated a more formal support from the institution, rather than the individual, as in Response 63's "We hope that this information will be of use to you." These formal statements might well be a standard part of all e-mail replies as part of an institutional policy on e-mail reference. That formality, although easier to set as a clearly observable standard of service, can actually inhibit trust if it is perceived as rote or a mere formality.

Signing the e-mail reply provides three benefits: accountability, connection, and humanity. Should a reply be problematic, a signature permits the user to identify the individual who provided the reply when trying to get additional help. The possibility of a follow-up query is more likely for some people when they have a connection with one individual rather than with an institution. Five librarians made that connection even easier by including their professional e-mail address in their signature. Finally, the user's revelation of a personal information need to a total stranger requires a certain degree of willingness to risk, and the inclusion of a signature in the reply helps to match that risk by putting a human face on the library's end of the exchange. Some libraries meet all these needs by permitting staff to use pseudonyms for the sake of their own safety but the principles remain valid. In this study, 49% of the responses included a signature with, at least, a first name. The fact that 51% of respondents chose not to identify themselves at all speaks poorly of the "human touch," which librarians can use so effectively to support user services.

#### Limitations

This study does not fully examine several crucial points, and these must be left for future studies. It does not examine the accuracy of the responses, except for the URLs, nor does it work with actual DV victims to discover the nature of their information needs over time. These and other issues certainly require careful examination but this study is limited to the research questions listed earlier. Within the context of those questions, these findings are limited in two aspects: sample composition and instrument effectiveness.

Because the sample centers on major public library systems in large cities its findings cannot be generalized to the thousands of small towns and rural areas where DV support is certainly needed and often underfunded. In addition, the instrument may have been problematic for some subjects. Even assuming that all nonrespondents ignored the e-mail rather than suffered some technical problem, the 82% response rate indicates that the instrument was effective in eliciting responses. Those responses, however, may not have received the attention that a genuine e-mail would have received if the recipients had doubts about the authenticity of the question. Those limitations of sample composition and instrument design do not undercut the value of these findings but must be kept in mind when examining the implications of this work.

## Analytic Template

Combining the cognitive and affective components into a coherent and potentially useful response requires applying professional guidelines smoothly enough to provide appropriate information in a trustworthy mode of address without appearing artificially responsive. Several replies managed to do just that. Figure 2 provides a reply in a template form with data from the library responses.

Figure 2 includes each of the cognitive and affective components that professional guidelines suggest should be included in such a response.

## **Summary and Implications**

This unobtrusive study of larger public library e-mail responses to domestic violence shelter queries determined that 18% of these public libraries do not receive and/or respond to their e-mail reference requests. To have so many queries totally unanswered is, of course, a significant issue regardless of the query's nature. A study of the response rates on three different questions sent to major academic libraries determined that 30 out of 294 queries were never answered (Stacy-Bates, 2003, p. 65), a 10% response failure that emphasizes the poor response rate for these large public libraries. The staff may have never received the queries, have forwarded them to other city agencies without follow-up, have found the question too uncomfortable to handle, have simply mislaid the queries, or decided that the query was not genuine. None of those possibilities, however,



FIG. 2. Reply template with findings.

mitigates the damage done by an unresponsive service. Of the 82% who did respond, 90% did so within one working day.

Among those that did reply, their answers could certainly be more complete (78% provided no descriptive information) but most replies were informative in that 96% provided one or more resources. Although full review of the referral accuracy was not feasible, 93% of the URLs were functional and accurate. It is critical to note, however, that as social service agencies develop municipal, regional, and even statewide databases of local support services, librarians will need to examine the accuracy of the resulting referral data carefully. Rather than a simple cut-and-paste from, for example, a United Way database of resources, librarians actually will need to contact the shelters by phone and online to verify the accuracy of the information provided.

The responding library staff certainly need some simple training on the need for providing a cyber-safety warning in domestic violence situations because only one reply included any information on the matter. Often envisioned only in terms of children's needs, the basics of cyber-safety are increasingly critical in areas of domestic violence, elder abuse, HIV/AIDS, and substance abuse support services.

From an affective perspective, their initial connections are only moderately strong (69% of the responders addressed their replies) and they need serious work in building user connections (only 25% invited further contact and only 44% included a supportive comment). Closing the contact also needs significant enhancement as only 49% identified themselves.

The implications of this study concern community information system designers, information studies educators, library professionals, and domestic violence researchers.

System designers could identify a means of automatically erasing the tracks of those who contact domestic violence services. Although no such erasure could ever be absolute, any means of doing so with minimal human intervention (from the victim, the referring agency, or the DV agency) would be invaluable. An automatic pop-up window that librarians could send along with an e-mail response and use in their own Web site reference lists could both educate and protect victims and their supporters. The growing use of e-government and e-health care support results in a greater number of DV support services and shelters developing a Web-based presence and offering outreach via e-mail. In DV situations, an abuser who monitors the victim's contact with the outside world can be particularly dangerous when that contact is strengthened. Crisis-line callers, for example, are routinely advised to call a "safe" number after phoning a hotline in case the abuser uses the redial function to identify a call. E-mail and Web site use are even more vulnerable to abuser tracking. With so many reference librarians, professionals who are in hourly contact with the Internet, unaware of the safety implications of cyberbased information transfer in DV situations, the possibility that medical and social service agents are equally lacking in cyber-safety awareness raises profound concerns for the physical safety of those victims who use these services.

Within the profession of librarianship, professional standards for virtual reference service need to include cybersafety concerns, a greater emphasis on social context, and rubrics for the exercise of judgment. As the information experts, librarians must be well aware of the cyber-safety problem and fully able to help users cope with it. Standards need to cover this concern carefully but currently go no further than addressing general user confidentiality. An understanding of user social context can strengthen both the cognitive and affective elements of replies. Understanding the monitor/blunter approach to information, for example, can help librarians better determine how much information to provide and when to go beyond the minimal reply.

Similarly, a set of rubrics on the basics of the reference transaction process can lead to the thoughtful exercise of professional judgment. Careful and rapid response to every question, for example, must be a given for service. Invitations to ask additional questions and professional contact information for library staff are simple components to be added to each reply but the professional judgment needed to balance the text and subtext of the question against the array of possible information pools requires a set of structured rubrics to support decision-making.

Standards and rubrics are, of course, no use in a vacuum. Both graduate education and continuing education need to include cyber-safety and a focus on exercising judgment. Basic precepts are increasingly included in coursework but must also be included in continuing education programs. Such precepts include the following: large amounts of information are not always better than compact replies; data dumps are rarely efficacious; the rush to reply cannot replace a careful reading of the request. The tools and resources needed to address these needs can best be created, monitored, and shared by public librarians who understand their communities well enough to streamline the connections between victims and the services set up locally to help them.

Perhaps most critical is the need for further research. The actual information needs of victims remain relatively unclear and the growing patchwork of digitally accessed social services remains uncharted. E-government and e-health resources continue to develop (Theofanos & Mulligan, 2004), but the effectiveness of these Internet-based agencies in terms of information provision remains unexamined. Victims, their families, and the network of agencies involved in the support process are all making use of the Internet. This study indicates some areas in which public libraries both make a substantive contribution and require further development. Future research will examine additional information elements of this complex and critical social ill.

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