

Benefits and challenges experienced by professional facilitators of online support groups for cancer survivors

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Abstract

Objectives: The primary aim of the study was to identify specific strengths and challenges of facilitating online cancer support groups relative to face-to-face groups through the use of deductive qualitative analysis. A secondary aim was to quantitatively validate the identified strengths and challenges.

Methods: To better understand how facilitators' roles in online support groups (OSGs) might differ from face-to-face (F2F) support groups, we compared the professional experiences of facilitators from both F2F and OSGs at The Wellness Community. Transcripts from online supervision sessions among OSG facilitators were analyzed using deductive qualitative analysis. A pool of items was developed to measure the primary themes derived from the qualitative analysis and administered to a sample of both F2F and online cancer support group facilitators.

Results: Strengths and weaknesses of online support group leaders could be captured in three categories: group processes, structural elements, and facilitator roles. Positive perceptions of group processes, structural elements, and facilitator roles were significantly higher among F2F facilitators than OSG facilitators.

Conclusion: OSG facilitators described their online groups as helpful to participants and identified some aspects of online groups that promoted more active processing of cancer experiences among group participants. Additionally, they reported that learning how to facilitate an online group strengthened their skills in facilitating face-to-face groups. However, OSGs do appear to present significant challenges to facilitation. These challenges are discussed with particular attention given to ways in which online facilitators have developed "work-arounds" for addressing shortcomings of the internet as a medium for delivering psychosocial services.

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Introduction

Online psychological services are increasingly available to and accessed by those who are seeking psychological treatment [1]. While online services are relevant to a wide range of patient populations, the application of Internet-based psychological services to those with cancer is a useful and well-studied model for understanding how these services might differ from traditional, face-to-face (F2F) services. Relative to other types of psychological services, support groups have been widely researched within cancer survivors. There have been at least 20 randomized studies of face-to-face support groups for cancer survivors [2] and 3 randomized studies of online support groups (OSGs) [3–5]. Very little is known about differences in communication styles between online and face-to-face groups or how these potential differences

impact the role of the facilitator and the overall efficacy of the group. Support group facilitators are at the frontline of psychosocial care for cancer survivors, and understanding their perceptions of the functioning and dynamics of the group is key to creating effective support services for cancer survivors. The purpose of this study was to identify OSG facilitators' perceptions of the benefits and challenges to providing psychological services online and to examine potential differences between online and face-to-face support group facilitators' perceptions about facilitation and efficacy of their groups.

Styles of facilitation for F2F support groups have received considerable attention in the clinical literature [6–8]. Researchers have described both group dynamics [8] and themes in groups that signify progression with group goals [6–7]. Facilitation styles and techniques for leaders of

cancer support groups have also received a fair amount of study [9–13]. Researchers have primarily focused their attention on therapist dynamics and behaviors as a foundation for improved psychological functioning [10–12], and there are clear clinical guidelines to assist facilitators with creating a supportive environment, structuring the dynamics of the group across sessions, and managing specific problems in the group [12].

General ethical and practical considerations for OSG facilitators have been described by others [14], but the dynamics of facilitation for OSGs of cancer survivors are poorly understood. While initial studies suggest that online groups may have efficacy for improving psychological adjustment in cancer patients [3,5,15], these studies do little to clarify the role of the facilitator in OSGs. In the Winzelberg *et al.* study [3], facilitators used content developed for face-to-face interventions to try to encourage discussion around each of 12 weekly topics specific to breast cancer. Facilitators were explicitly asked to avoid developing ‘therapeutic relationships’ with online group members and to instead use their comments to promote the development of social support among members and to focus group discussion around the 12 structured topics [3]. Explicit efforts to create professional distance between the group facilitator and group members were likely intended to avoid potential ethical and legal problems associated with providing professional services online [13]. Facilitation guidelines for the Comprehensive Health Enhancement Support System suggest that facilitators’ roles are primarily to promote members’ feelings of safety in the group and to stimulate group discussion [5,16]. However, these roles are only briefly described and do not acknowledge potential differences between online and face-to-face facilitator roles. Lieberman and Goldstein [15], reporting on the effects of participation in The Wellness Community (TWC) OSGs for women with breast cancer, more carefully identify training procedures for facilitators of OSGs. In this study, facilitators were trained to use the TWC’s ‘Patient Active’ approach to facilitation, and transcripts and live observation of the first OSG were used to train additional facilitators and further refine the facilitation approach. TWC’s support groups emphasize encouraging patients to become empowered to make active choices in their recovery, reducing unwanted aloneness, loss of control, and loss of hope. Behaviorally, participants focus on making changes in their lives that they view as important, developing a new attitude toward the illness, active coping with the illness, and better partnering with their physician.

Understanding differences in facilitator roles between online and face-to-face support groups is particularly important in light of the fact that numerous differences in communication dynamics

have been identified in comparisons of F2F and online social interactions. In one study comparing online and face-to-face focus groups, Campbell *et al.* [17] found several notable distinctions between the two types of groups. The authors reported that participants in face-to-face support groups were more likely to provide non-verbal emotional tone, provide greater depth and breadth across all comments, and to exhibit greater levels of interaction with one another relative to participants in online focus groups. In contrast, participants in online groups shared more deeply when talking specifically about potentially sensitive or private topics, were less likely to be dominated by a handful of participants, and reported that groups were easier to access [17]. In another study comparing computer-mediated and F2F group communications among adolescents, Zimmerman [18] reported that computer-mediated group interactions were more transactional in nature and reflected greater disclosure of emotion. In early work examining communication differences across media, Black *et al.* [19] reported that in comparison with face-to-face exchanges, electronic communications are more likely to make use of multiple, simultaneous threads of discourse (e.g. several ongoing conversation topics occurring at the same time without social turn-taking) and to involve communication turns that are richer in content (i.e. posing multiple questions at once rather than waiting for a single question to be answered). Other studies have suggested that disputes via e-mail may be more likely to escalate into conflict [20], that writers of electronic messages overestimate their ability to convey tone [21], that preconceived expectancies are more likely to be solidified in e-mail exchanges relative to verbal exchanges [22], that e-mail exchanges are more open to multiple interpretations than voice exchanges [22], and that peer-ratings through e-mail are more negative than ratings provided in written feedback [23].

To better understand how facilitators’ roles in OSGs might differ from roles experienced by facilitators of face-to-face support groups, we identified and evaluated the professional experiences of facilitators at a large community organization that provides both face-to-face and OSGs for cancer survivors and their loved ones. Two aims of the study were identified. The primary aim was to use deductive qualitative analysis to identify specific strengths and challenges of facilitating OSGs relative to facilitating face-to-face groups. A secondary aim was to quantitatively validate the identified strengths and challenges. To accomplish this aim, results of the qualitative analysis were used to develop a facilitation questionnaire that was administered to both online and face-to-face support group facilitators. It was hypothesized that OSG and

F2F facilitators would differ on each of the qualitatively identified constructs. A better understanding of the dynamics associated with OSG facilitation is a necessary step toward maximizing the potential of Internet-based services to improve participant outcomes.

Methods

Participants

Participants were recruited with the assistance of TWC. TWC is an international non-profit organization that employs approximately 220 psychologists, social workers, and other mental health professionals. A wide range of support services are provided by TWC, including professionally facilitated face-to-face support groups for all people with cancer and their families. TWC also offers educational programs, physician lectures, diagnosis-specific support groups, stress reduction, and exercise programs. These support groups use the ‘patient-active’ concept to encourage cancer survivors and their family members to become active participants in their medical treatments and to facilitate adjustment after diagnosis, during, and after treatment. The goal of this approach is to help participants develop a new attitude toward their illness, make changes in their lives that they view as important, become better partners with their physicians and healthcare team, and have better access to cancer-related information and services. In February 2002, TWC developed and launched The Virtual Wellness Community (TVWC), which attempts to replicate the successful face-to-face models of care in an online environment. TVWC OSGs consist of weekly, 90-min meetings in a real-time chat application facilitated by a professional therapist. Additionally, group members are encouraged to interact with one another using an asynchronous discussion board in between the weekly group meetings. OSGs are closed groups, meaning that access is restricted to those who have completed a registration process designed to verify cancer diagnosis and appropriateness for an OSG. Groups are available to all cancer survivors regardless of cancer type or time since diagnosis.

TWC’s F2F support group facilitators meet weekly within their program offices to provide clinical supervision and professional support to one another. Similarly, TVWC facilitators have their own online chat room in which they hold weekly supervision meetings over the Internet. Given the intentional similarities between TWC’s face-to-face and OSGs, this model of clinical care provides a unique opportunity for understanding the similarities and differences between facilitation

Table 1. Demographic and professional characteristics of face-to-face (*n* = 29) and online support group (*n* = 11) facilitators.

	F2F facilitators %	OSG facilitators %	χ^2 (df)
Gender			2.05 (1)
Female	69.0	90.9	
Male	31.0	9.1	
Profession			7.67 (3) [†]
Counselor	3.4	18.2	
Marriage and family therapist	37.9	27.3	
Psychologist	17.2	45.5	
Social worker	41.4	9.1	
Highest degree			0.60 (1)
Master’s degree	75.9	63.6	
Doctorate	24.1	36.4	
Region			3.67(1) [†]
Eastern US	51.7	18.2	
Western US and Canada	48.3	81.8	
	\bar{x} (SD)	\bar{x} (SD)	t (df)
Age in years	54.4	52.3	0.66 (38)
Years since obtaining highest degree	21.2	17.5	1.10 (38)
Years of experience with The Wellness Community	7.3	7.5	0.15 (37)
Years of experience facilitating face-to-face groups	11.2	12.7	0.57 (38)
Years of experience facilitating online support groups	0.0	2.6	4.09 (9.0)**

[†]*p* < 0.10, **p* < 0.05, ***p* < 0.01.

tion dynamics in real-world and virtual environments. Transcripts of the OSG supervision sessions served as the source data for phase 1 of the study, and participants included all (*n* = 11) of the TWC OSG facilitators who participated in phase 2.

In order to validate the qualitative results, we then sought to recruit both OSG and F2F facilitators to complete the Facilitator Questionnaire in phase 2 of the study. After obtaining institutional review board approval, TWC’s National office located in Washington, DC, notified program directors at each of the 21 TWC facilities in the US about the study. Program directors were asked to share information about the study with facilitators at their site, and interested facilitators were asked to then contact one of the non-TWC study investigators for more information about the study. In order to minimize any type of participation or response bias all potential participants were assured that their individual decisions to participate and their responses to the questionnaires would be kept strictly confidential and would not be shared with TWC. Twenty-nine F2F facilitators and each of the 11 OSG facilitators provided self-report data for this phase of the study. Demographic and professional characteristics of the participants are provided in Table 1.

Procedure

The present study was conducted in two phases. In the initial qualitative analysis phase, transcripts of the OSG-facilitator supervision sessions were reviewed by trained research assistants. All OSG supervision meetings lasted approximately 60 min and were conducted in the same chat-room environment used to host the OSG meetings. Transcripts were automatically stored on TWC's server, and transcripts were available for each week since August, 2002, when TWC began providing OSGs. Given the volume of communication available for qualitative analysis, we used a random-number generator to randomly select 25% of the 148 transcripts that were available at that time. This process resulted in 37 separate supervision transcripts that were qualitatively analyzed. Each transcript was de-identified prior to review by the research assistants, and each transcript was reviewed independently by at least two of the researchers. Deductive qualitative analysis methods were used [24], beginning with the experientially derived hypothesis that OSG facilitators would report both significant benefits of the online medium relative to face-to-face groups and substantial deficits that might interfere with the provision of therapeutic interventions. Using this conceptual framework, research assistants then identified each instance in which facilitators mentioned a specific strength or challenge associated with facilitation of OSGs relative to face-to-face support groups. Instances were then combined into related categories only when consensus existed among the three research assistants using methods elaborated by Schilling [25]. Three over-arching categories (or themes) were identified as a result of this process: group processes, structural elements of the groups, and facilitator role certainty. Within the larger categories, 19 specific content domains were identified (8 within group processes, 8 within structural elements, and 3 within facilitator role certainty; see Tables 2–4). Coding of transcripts continued until no new content domains could be identified.

In order to validate the relative strengths and challenges of OSGs that were identified in the qualitative study, we developed a facilitator questionnaire by constructing several items for each of the 19 content domains identified during deductive qualitative analysis. A pool of 53 items was developed to assess each of the main qualitative themes identified as 'group processes'. Thirty-seven items were used to assess the qualitative themes identified as 'structural elements', and 19 items assessed 'facilitator roles'. Of these 109 total items, 62 were reverse coded to reduce the potential impact of a positive-response bias. Additionally, all items were written so as to be equally applicable to the online or face-to-face support group in order to

make it possible to directly compare responses between online and face-to-face facilitators. Participants were then recruited from a pool of all cancer support group facilitators employed by TWC, as described above. Participants included all of the OSG facilitators who contributed to the OSG supervision sessions analyzed in the qualitative phase of the study. OSG facilitators were blinded to the study aims and hypotheses. After contacting the investigators, participants were provided with additional information about the study and directed by e-mail to the study Web site. Participants completed the informed consent document and the study questionnaires online.

Web-based assessment

Participants provided basic demographic information and information about their professional backgrounds and level of experience facilitating both online and F2F cancer support groups. Additionally, participants were asked to describe the relative proportion of various cancer types represented in their cancer support groups.

Facilitator questionnaire: benefits and challenges associated with facilitation

Item stems for the facilitator questionnaire were measured with a 6-point Likert response scale anchored by 1 (strongly disagree) and 6 (strongly agree). Example items include 'the time and location of my group makes it easy for group members to attend' (structural element), 'some group members don't have room to say as much as they need to say in group meetings' (group processes), and 'it is difficult for me to stop the group and make therapeutic comments' (facilitator role). The 53 group process items were summed to create a Group Process composite score. The 37 items representing structural elements were summed to create a Structural Elements composite score, and the 19-facilitator role items were similarly combined to create a Facilitator Role composite score. Positive scores on each of the composite scales reflected more positive perceptions about Group Processes, Structural Elements of the group, and Facilitator Roles. Reliability analyses indicated that each of the three composite scores exhibited good internal consistency (Cronbach's $\alpha = 0.81$ for group processes, $\alpha = 0.79$ for structural elements, and $\alpha = 0.77$ for facilitator role certainty).

Perceived effectiveness of facilitation and benefit to members

Single-item measures were employed to assess perceived effectiveness of facilitation and perceived benefit for support group participants. Using a 9-point Likert-type scale, facilitators were asked

Table 2. Qualitative categories of group processes and dynamics associated with online support groups

Category	Common issues identified by facilitators	Example as expressed by OSG facilitator(s)
Openness among group members	Special types of bonding occur in OSGs; increased disclosure and openness associated with relative anonymity in OSGs; group members write more than they might say in a large F2F group; deep exchanges among members is frequent and promotes a sense of safety and intimacy in groups; intense experience of emotion in groups despite lack of physical presence; easier for some members to express emotions that might be difficult to express F2F; depth and closeness in OSGs mirrors F2F groups; easier for some to share emotions online; easier to discuss personal or embarrassing issues (e.g. sex, bodily functions, etc.); acknowledging limitations of the online environment can increase the depth of discussion; medium allows members time to reflect on their own and others' written responses; medium allows for long, uninterrupted posts that can promote expression	'My group has expressed that particularly about sexual issues...that they say much more when they are unable to see one another'
Social equality	Group members are not judged by and are unable to react to physical appearances; members are able to adopt different online roles and personalities; members are unable to discern age, race, income, attractiveness, etc. of other members; members may present an idealized version of their self online; members may experience personal growth from seeing how others respond to them in the absence of physical cues	'I was also thinking that the Internet is the great equalizer...that unless someone tells us ...we don't know anyone's ethnicity, SES, gender, age, etc.'
Increased contact with other survivors	Easy for members to communicate between weekly meetings; facilitator is able to rapidly reply to concerns posted on the discussion board; the Internet makes it possible to provide groups that consist of individuals with more similar disease characteristics; members still find ways to connect outside of the online group; members can communicate synchronously and asynchronously; members can easily disseminate information and research with one another (e.g. links to news sites, pdf files, etc.); members can share test results and updates with one another between group meetings	'So often people can't sleep and worry, alone in the dark.... I do think the fact that they can 'attend' at their convenience, including the middle of the night, makes it easier for them to join in and enhances their participation'
Opportunity for self-reflection	Group members may put more thought into written expressions than verbal expressions; the online medium allows members to take time to reflect before responding to others; writing in OSGs may invoke different therapeutic processes than might occur in a F2F group; writing longer passages allows members to share more deeply with one another; compensation for lack of non-verbal cues occurs with emoticons and other methods of expressing physical presence (e.g. hugs expressed with '((((((((((HUG)))))))))); personality and other intangible personal characteristics 'come through' the medium despite lack of physical presence	'Being in an OSG is similar to journaling—writing out your thoughts in safety, not having to see someone's face for reaction, perhaps the projection that goes on—I probably could spend a lot of time analyzing it'
Pacing of group discussion	When pace of discussion is rapid, heartfelt messages may be ignored; participants who type more slowly may be overlooked by others; responses to earlier messages can quickly become obsolete; difficult to develop a sense of timing in responding to a rapid group discussion; there can be several simultaneous conversations occurring; members may become frustrated if a posted message is overlooked due to a rapid pace of group discussion	'People write their thoughts/responses, and often, depending upon whose computer is faster, sometimes things overlap, or seemingly, contradict each other. That's where we, as facilitators, come in'
Commitment to group	Online environment reduces expectations of weekly attendance or responsibility to the group; easier for group members to drop out/vanish from the group; easier for participants to show up late or miss meetings altogether; easier for members to be pulled away from the computer during a group meeting to attend to events in their actual physical environment	'I am sometimes taken aback at the casualness of some group members who forget the time, show up, leave early, etc. There is some sense that the commitment is to themselves and not to the group as a whole '
Group cohesiveness among group members	It can take a long time to develop and initiate an online group; great variation in degree of emotional expression and connectedness among group members; it can be difficult to deepen group discussions; good-byes occur rapidly online but discussion can continue after the group meeting is over; group cohesiveness deepens when members meet F2F	'I had shared my experience of the paradox of the difficulty of creating depth in the online discussion, and yet at times it can go very deep, with the anonymity'
Emotional expression	Conflicts can escalate more rapidly in online groups and de-escalation is more challenging than F2F; learning curve required for expressing emotion in text (e.g. LOL); easy for members to project interpretations onto others' statements due to lack of non-verbal cues; online environment makes it easier for group members to be flirtatious with one another or misinterpret messages as flirtatious; difficult for facilitators to identify or address unexpressed emotion; members may exhibit higher levels of passive-aggressive behavior or defensiveness online	'I do think it [emotion] is primary and pre-verbal ... Funny how we often have to RELEARN identifying such visceral human experiences and giving them a voice'

Table 3. Qualitative categories of the structural elements associated with online support groups

Category	Common issues identified by facilitators	Example as expressed by OSG facilitator(s)
Increased ability to participate in a group	Increased access to support for cancer survivors; flexibility of medium allows participation at any level a person is comfortable with, can serve as a gateway to more intensive intervention (e.g. F2F group or individual therapy); allows participation by those overseas, living in rural areas, with advanced disease, working, etc.; able to connect at any time of day or night; participation is less formal than a F2F group (e.g. does not even require getting dressed to attend)	'I am continually surprised at how connected the people in my group are. I think they are just so hungry to interact with others with the same disease'
Availability of transcripts	Participants can 'catch up' if they missed group; facilitators can more easily help one another by reviewing previous group sessions; transcripts allow absent members to be included in the discussion (i.e. group members can say hello, knowing absent member will read it later); easy for facilitators to substitute for one another by reading transcripts prior to joining; helps build sense of community among OSG facilitators	'that by choosing a topic for supervision, it encourages us to take the time to read the transcripts of more of the groups than we might do otherwise and since this is an evolving medium for us, I think that aspect is very educational'
Availability of discussion board	Can be used to alert group members to upcoming absences; seeing posts lets participants know others are thinking of them during the week; creates a private sense of 'place' belonging only to the group; participants able to think about and process issues before raising them in the synchronous group meeting	'we could use the discussion board when things are going on personally with us that we would like to share with one another—I'd really like that'
Lack of physical contact	Inability to be physically present (e.g. giving hugs, attending funerals); inability to meet outside of group or have other physical contact; no ability to show emotions through posture, facial expressions, etc.; experiencing intense emotions while alone in front of the computer; being aware that other group members are also 'alone' in front of their computers	'I was just imagining a group hug... one of those quiet and warm hugs that linger... and you don't want to let go... but are waiting for the right moment to breathe and release'
Structure of session	Difficult to identify which treatment model (e.g. asynchronous vs synchronous, group vs individual; structured vs unstructured, etc.) is most appropriate for OSGs; balancing communication between asynchronous discussion board and synchronous chat group is challenging; coordinating meeting times across time zones is difficult	'I would also suggest that topics be introduced asynchronously so that people can focus their interactions. they don't have to answer to the topic...they can share about anything but this helps the group connect and the facilitator has a meaningful role whether the group is synchronous or asynchronous'
Lack of non-verbal and visual cues	Difficult to interpret silence and need for facilitator to check-in with silent members more actively than in F2F group; interpreting emotional tone/intent is challenging; remarks easily misinterpreted; inability to read body language; unable to know whether group members who appear to be present in the OSG chat room are present in front of their computer	'For me, it's about shifting into an inner space that places me in the room and within the words, to feel the participants and their words, or lack of them, and to see with different eyes. It's not unlike how those who have lost one of their senses, that others grow in response'
Technical and literacy challenges	Need to clarify technical words/acronyms (e.g. LOL); software difficulties (e.g. members being dropped from room); computer/Internet connection problems; variability in members' typing speed and spelling abilities; flow of group discussion disrupted by typing corrections; making Web site seem more personal, inviting, and human	'sorry I'm late—I kept getting dropped from the chat room and couldn't get in!'
Anonymity	Concerns about confidentiality of transcripts and potential for breach of confidentiality; difficulty faced by facilitators in learning personal information about group members that they feel is relevant to the care they provide; group members may pressure other members to share personal information (e.g. photos); anonymity increases depth of participation for some group members	'privacy and anonymity is one reason people join these groups'

'overall, how effectively do you think you are able to facilitate your [online or face-to-face] support groups?' and 'overall, how beneficial are your [online or face-to-face] support groups for each individual who joins'? All facilitators were also asked to compare the degree to which participants in OSGs benefit relative to participants in face-to-face groups and were provided with response options of 'less than', 'as much as', or 'more than' face-to-face participants.

Data analysis

For continuous scale scores, the two groups of facilitators were compared using equal variances independent samples *t*-tests. Homogeneity of variance assumptions were tested prior to interpretation and were not violated for any of the reported comparisons. For nominal variables, OSG and F2F facilitators were compared using the χ^2 test of association. Effect sizes are reported in addition to

Table 4. Qualitative categories of facilitator roles in online support groups

Category	Common issues identified by facilitators	Example as expressed by OSG facilitator(s)
Facilitation processes	Use of private chat between facilitators can be used to improve co-facilitation (replaces eye contact and allows for better coordination between facilitators); group members assume mentoring roles and share in the facilitation process; online groups enhance growth/honing of facilitation skills by forcing attentiveness to 'preverbal' communication; makes one a better face-to-face facilitator; online environment challenges traditional facilitator/member boundaries and promotes appropriate self-disclosure among facilitators; availability of transcripts makes it easier for facilitators to substitute for one another in case of absences	'[another facilitator] and I can discuss process etc while the group is ongoing, much like eye contact between co-facilitators in F2F might be'
Facilitator role uncertainty	Facilitator comments being ignored by the group; challenge of learning new ways of facilitating in online environment; modeling for participants the ability to carefully articulate non-verbal behaviors and emotional tone; need to use specific techniques or comments to 'deepen' online discussions; relative difficulty of making process-level interventions online; difficulty of focusing the conversation and providing structure to online discussion; need for specific training to facilitate online groups; fear/anxiety associated with facilitating online groups	'Just by openly acknowledging these limitations [of the medium], I think we create the opportunity for 'deepening' to occur; e.g. by saying it's hard to not be physically with the group while everyone is grieving, it opened up opportunities for sharing virtual hugs and tears'
Ethical and professional concerns	Concerns about handling risk for harm to self or others; using reasonable clinical judgment more difficult in OSGs than F2F groups; can be difficult to determine who is or is not appropriate for the OSG (e.g. identifying axis II issues that could result in disruption to the group); challenge to balance protections for members with the desire to make groups accessible to all those who want services; challenge of determining whether a member is clinically distressed and requires greater intensity of intervention and/or referral; understanding legal and ethical guidelines for practice; challenge of negotiating boundaries between support group and therapy group	'I think you handled the situation fine—making sure that she has appropriate help, clarifying about the degree of her suicidality... discuss[ing] the limitations of this group—information exchange & support—but not psychotherapy. And, importantly, without the f2f feedback and reading of cues, there is a real question on how to be helpful...beyond encouraging her to use the resources she's established'

results of null hypothesis testing for all primary analyses.

Results

Characteristics of participants

Demographic and professional characteristics of the facilitators were available only for phase 2 of the study and are presented in Table 1. F2F and OSG facilitators did not differ on any of the measured characteristics, including age, years of experience working in cancer-specific settings, or level of experience facilitating face-to-face cancer support groups. As expected, the F2F facilitators did not have any experience facilitating OSGs. However, differences in geographic (regional) location and professional identity approached significance and are noteworthy given the limited size of the overall sample. OSG facilitators were more likely to practice in the Western US or Canada and to identify themselves as psychologists and counselors. They were less likely to identify themselves as social workers or marriage and family therapists.

Facilitators' reported characteristics of their groups were also similar. Cancer types represented in the F2F and OSG groups were similar overall,

with no differences in frequencies of participants with leukemia and melanoma and brain, breast, colorectal, and lung cancers. Additionally, the average number of group participants was not significantly different between F2F ($\bar{x} = 10.2$) and OSG ($\bar{x} = 5.7$) facilitators. However, OSG facilitators reported a significantly higher frequency of participants with cervical cancer (21 vs 11.4%) and a significantly lower frequency of participants with prostate cancer (1.1 vs 5.2%) relative to F2F facilitators.

Qualitative findings

We identified three broad themes that represented both strengths of OSGs relative to face-to-face groups and challenges associated with facilitation of groups in the online environment: group processes and dynamics in OSGs, structural elements that make OSGs unique from F2F groups, and facilitator roles in OSGs. Each theme is described in greater detail below and in Tables 2–4.

Theme 1: group processes

Group processes and dynamics associated with OSGs were characterized by OSG facilitators as the

unique aspects of OSGs that noticeably influenced the quality and type of interactions among group members. Eight domains of group processes were identified: the ability of participants to be more open with one another about intimate details of their lives in online relative to F2F groups, the ability of the Internet to create social equality within the groups, increased day-to-day contact with other cancer survivors online, greater opportunity in the online groups for self-reflection and thoughtful expression of feelings and concerns, difficulties associated with pacing the flow of the group discussion in the chat-room environment, lack of participant commitment to the online groups, greater levels of group cohesiveness among OSG members who consistently attend the group, and enhanced emotional expression and empathy among online group members.

Two of the most mentioned group processes were social equality and commitment to the group. While facilitators reported both benefits and challenges associated with communicating online, more benefits than challenges were reported. Because members were unable to see the people they were interacting with biases regarding physical appearances were not possible. Another frequently discussed issue was commitment to the group. Numerous facilitators reported both decreased participation rates and commitment to the group. While the lack of physical presence may create a more socially equitable environment it does reduce the social pressure to arrive and participate. Examples for each of the categories related to group processes are provided in Table 2.

Theme 2: structural elements

Structural elements were represented by those aspects of OSGs that inherently differ from F2F groups due to the nature of the two environments: the capacity for online group members to access and engage in discussion with the group 24 h a day, the availability of transcripts from previous online group meetings, the presence of a group discussion board online, the lack of physical contact with other group members, the lack of physical and non-verbal cues during communication, technical and literacy-related challenges to accessing the OSG, anonymity afforded by online participation, and structure of the online group sessions.

The lack of non-verbal and visual cues is a structural element that was repeatedly discussed by facilitators during supervision. While not having the ability to see other group participants can prevent people from reacting out of bias, the lack of non-verbal and visual cues was repeatedly reported by facilitators as leaving participants and facilitators unclear as to what others are thinking and feeling at any given moment. Although these challenges exist facilitators were

eager to find solutions to these problems. For example, uncertainty regarding how to interpret silence and convey emotions is a challenge for facilitators as well as group members. Work-arounds such as 'PIP', which stand for paragraph in progress provide a way to interpret the silence and take the time needed to formulate a thought. A more detailed description and examples of the eight identified domains and some of the work-arounds are provided in Table 3.

Theme 3: facilitator roles

Facilitator role elements were characterized by those aspects of the online environment that challenged facilitators' styles, methods, and expected roles in providing group facilitation. Three specific content domains were identified, including the need to change facilitative behaviors to promote deeper discussion in the online groups and adapt to differences between online and F2F environments, the uncertainty a facilitator can face when interpreting material that is communicated during an OSG (i.e. interpreting comments that lack tone of voice or other non-verbal cues to mood state), and ethical concerns that arise in an online vs face-to-face environment.

One of the most frequently described domains regarding facilitator role was in the area of facilitator role uncertainty. As is frequently the case with F2F groups, facilitators reported uncertainty with their role in the group. Facilitators reported the desire to 'deepen' online interactions, although they were uncertain as to how to accomplish this goal. In addition, it was repeatedly noted that facilitators question how much they should interact and how directive this interaction should be with group members. While these challenges are similar to those that arise in F2F groups, the online forum calls for different solutions. All of these domains are described further in Table 4.

Quantitative findings

Comparison of OSG and F2F facilitators

Facilitators' perceptions regarding group processes, facilitator role, and structural elements of their groups were examined to evaluate potential differences in perceptions between OSG and F2F facilitators. F2F facilitators reported more positive group dynamics, greater comfort in their roles as facilitators, and more favorable structural aspects of their groups compared with OSG facilitators (see Table 5). Between-group differences were significant at the $p < 0.05$ level for each category, and the effect sizes were large (0.89–1.43). Because there were marginal differences between OSG and F2F facilitators in terms of geographic region and professional back-

Table 5. Comparison of face-to-face and online support group facilitators' perceptions of group processes, structural elements, and facilitator roles, with example items from each scale

	F2F facilitators \bar{x} (SD)	OSG facilitators \bar{x} (SD)	t (df = 36)	ES
Positive group process dynamics	4.46 (0.37)	4.13 (0.32)	2.58*	0.89
I notice that emotional expression is difficult for some in my group ^a				
Group members always see through superficial characteristics in responding to the needs of a fellow group member				
Group members who have a crisis outside of the group get support before the next meeting				
Group members have time to choose their words carefully				
It is difficult for participants to be assertive in expressing their needs ^a				
Participants often miss meetings or show up late				
When group members leave early, it is difficult to bring closure to the meeting ^a				
It is difficult to identify unexpressed emotion by group members ^a				
Positive structural elements of the group	4.63 (0.35)	4.13 (0.40)	3.84***	1.43
Group members' schedules and health status often conflict with their ability to attend group meetings ^a				
If a member misses a session, it can take a while for them to catch up on what they missed ^a				
Group members clearly think about and process issues before the meeting				
Participants often feel alone with their emotions ^a				
It is difficult to determine a good meeting time that will work for all participants ^a				
Members rarely misinterpret the remarks of another member				
Facilitator role certainty	4.91 (0.66)	4.30 (0.77)	2.46*	0.92
In the group, I am constantly aware of how I present myself nonverbally ^a				
I find it necessary to coach participants to convey their emotions ^a				
I can easily determine how distressed a group member is				

ES = effect size (Cohen's *d*); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$;
^a (item was reversed scored).

ground, we then sought to evaluate whether group differences in group processes, facilitator role, and structural elements would remain significant after controlling for these variables. After adjusting for geographic region and professional background, between-group differences remained significant for structural elements, $\beta = -0.45$, $F(1, 37) = 6.9$, $p = 0.013$, and group processes, $\beta = -0.41$, $F(1, 37) = 4.8$, $p = 0.036$. In the covariate-adjusted model, differences between OSG and F2F facilitators were no longer significant for facilitator role ($p = 0.11$).

No differences between OSG and F2F facilitators were observed for perceived degree of effectiveness of facilitation (F2F: $\bar{x} = 7.56$, $SD = 1.2$; OSG: $\bar{x} = 7.2$, $SD = 0.6$) or perceived benefit to participants (F2F: $\bar{x} = 7.93$, $SD = 1.1$; OSG: $\bar{x} = 7.6$, $SD = 1.2$). When asked to describe the benefit a group member could expect to receive from an OSG in comparison with a face-to-face support group, 51% reported less benefit than a face-to-face group, and 49% reported as much benefit as a face-to-face group. None of the facilitators who participated in this study reported that OSGs would confer greater benefit than a face-to-face group, and perceptions of benefit were not significantly different between F2F and OSG facilitators, $\chi^2(1) = 2.50$, $p = 0.11$.

Discussion

Patient-based outcomes associated with the use of supportive care services for cancer have understandably been the focus of psychosocial intervention research. The present study is unique because we were able to both qualitatively and quantitatively characterize the experience of professional facilitators of online and F2F support groups for cancer. To our knowledge, this is one of only a handful of studies to sample cancer support group facilitators and the first study to sample facilitators of OSGs. Qualitative analysis attempted to explicitly identify both strengths and challenges of facilitating OSGs relative to F2F groups, so it is not surprising that significant benefits and significant difficulties associated with the use of the Internet to provide these services emerged from the transcripts. What was surprising, however, was the remarkable degree to which OSG facilitators expressed optimism and excitement for the role of OSGs in providing care for those in need, identified creative 'work-arounds' for limitations of the medium, and described enhanced professional growth associated with OSG facilitation and participation in the online supervision experience.

Many of the key challenges associated with facilitation of OSGs were limitations inherent to the Internet as a medium, but others were

limitations that also exist to some degree in F2F groups. OSG facilitators explicitly described problems that are commonly voiced by F2F facilitators, including difficulties pacing the group discussion, handling lack of commitment to the group, and difficulty creating cohesion within the group. However, the nature of these difficulties was unique to the online medium. Difficulties pacing group discussion involved rapid back-and-forth exchanges between participants and such comments sent to the group could not be read, processed, and attended to before another comment was posted. Often, such pacing difficulties led to simultaneous 'threads' of conversation and impeded the ability of the group to focus on a single cohesive topic at one time. Importantly, when describing these challenges in the online supervision meeting, discussion between facilitators often led to suggestions from other facilitators about how to address or overcome these challenges. For example, facilitators came to common solutions about how to encourage group members to wait for in-depth comments that take longer to type—using the phrase 'PIP'—to let others know that they have more to say than what is currently displayed on the screen.

Other significant challenges to facilitation of OSGs involved the interpretation of tone or emotion in the absence of physical and non-verbal cues. A number of creative work-arounds for these problems were also shared in the online supervision meetings. Some facilitators suggested the use of phrases like 'QS' as a means of offering 'quiet support' and providing explicit context for silence that might be provided through non-verbal means (e.g. nodding, smiling, looking) in a F2F group. Facilitators also frequently referenced the importance of explicitly teaching and implicitly modeling means of conveying emotional tone in the OSGs. This challenge was perhaps one of the more frequent and remarkable topics of discussion in the online supervision meetings. It was common for facilitators to report that the absence of physical and non-verbal affective cues promoted more active efforts on their part to elicit this information from their group members and to thereby encourage emotional expression. A number of facilitators directly stated that they felt the necessity of actively attending to and promoting the verbal expression of these otherwise non-verbal cues had made them more aware of these issues and improved their ability to facilitate F2F groups.

There were a few challenges associated with OSG facilitation for which few work-arounds were identified, including concerns about professional roles in the online environment and technical challenges associated with the software used to implement the OSGs. On occasion, group members and facilitators had difficulty with the java-based chat interface used for the OSGs. Technical

difficulties ranged from being unable to access the 'room' for the OSG, being suddenly disconnected from the discussion, or simply having difficulty using the interface. Such difficulties were not frequently mentioned and occurred infrequently in the groups. Facilitators also voiced a number of suggested features that were not yet available in the software interface for the online groups. Creating opportunities for professional OSG facilitators to provide input into software and Web development could further enhance the usability of these tools for providing online support.

Much has been written about the professional implications of providing therapy online [26,27], and these implications were quite relevant to OSG facilitators. Because many of the characteristics of OSGs that make them attractive to participants (e.g. relative anonymity, ease of participation, limited social commitment to the group, etc.) also make it difficult if not impossible to perform a clinical assessment of the participant's current psychosocial situation, this can create a host of ethical dilemmas for facilitators. TWC has attempted to overcome this problem by being quite explicit with potential participants about the limits of what OSGs are able to provide for them. Specifically, OSGs are offered as non-therapeutic support groups and are not considered to be professional therapy groups. This distinction is important. For the practice of psychology, state laws do not yet allow psychologists to provide therapy to those living in other states (except under very limited circumstances). It seems clear that the potential of the Internet for providing services has outpaced federal and state regulation of these services. TWC also provides additional protections to participants by having each new participant ask their doctor or oncologist to complete a diagnosis confirmation form. These measures provide the groups with a sense of security and confidentiality, but it also ensures that participants have face-to-face contact with a health-care professional and gives these professionals an opportunity to evaluate the participant's appropriateness for an OSG.

Results from the quantitative analysis largely validated the findings of the qualitative analysis (see Table 5). Expected differences in group processes, structural elements, and facilitator role uncertainty were identified between F2F and OSG facilitators. These results suggest that when compared with F2F groups, OSGs suffer from problems associated with less than ideal commitments to the group from group members (i.e. members missing groups or showing up late, members finding it easier to miss meetings that occur online, and 'dropping in' to online group meetings without a great deal of forethought about previous meetings). Additionally, group sizes are notably, if not significantly, different between F2F groups ($\bar{x} = 10.2$) and OSGs ($\bar{x} = 5.7$), highlighting the

difficulties associated with populating online groups with enough engaged participants to have a viable and sustainable group.

Subsequent technological changes may be able to address many of these problems. For example, second-generation OSG development could deliver enhanced abilities for participants to provide non-verbal cues and emotional tone (e.g. through availability of relevant emoticons or periodic assessment of mood with results displayed in the user interface) and thereby increase a sense of human connection to others in the group, use of interactive social-networking components to increase commitment to the group, availability of multiple means of interacting with group members (e.g. asynchronous discussion boards, synchronous chat rooms, private e-mail delivered through the OSG Web site, etc.), and use of routine and specific assessment tools to identify distress.

Several limitations of the study are noteworthy. The overall sample size was small, particularly for OSG facilitators ($n = 11$). However, we were able to sample all of the OSG facilitators at TWC, and observed effect sizes were modest to large. An additional limitation may be the generalizability of the findings given the unique service delivery model that is provided by TWC. Little is known about the number or nature of services provided by other OSG providers, so our results speak primarily to one model for providing these services. The characteristics of TWC-provided OSGs for cancer that are likely quite distinct from other OSGs include weekly online supervision meetings for facilitators, the emphasis on OSG-specific training for facilitators, and the link between brick-and-mortar facilities and OSG services that are made available by TWC. Finally, it should be noted that transcripts that were qualitatively reviewed were derived from supervision discussions between the 11 OSG facilitators who then provided self-report data in phase 2 of the study. However, despite the potential for biasing the results in favor of OSGs, our results show that F2F facilitators reported significantly more positive attitudes about their groups than did OSG facilitators.

Online psychosocial services are a relatively new avenue for the delivery of psychosocial care. Evaluation of patient outcomes associated with OSG participation is understandably a priority given the levels of distress experienced by patients and the clinical demands on service providers. However, it is equally important that we identify and understand potential differences in effective communication styles between online and F2F environments so that facilitators are able to provide the highest possible level of care. Training for the OSG environment is likely to help facilitators to be better prepared to address these differences in communication styles, handle technical challenges, model the verbalization of non-

verbal cues and feelings, and manage the challenging dynamics of OSGs. The experiences of TWC's OSG facilitators would also suggest that training and experience facilitating OSGs could be a useful method for improving facilitation skills for F2F facilitators.

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