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#socialwork: Informal Use of Information and Communication Technology in Social Work

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Abstract

Information and communication technologies (ICTs) have transformed social realms and professional fields of practice including social work. Research is lacking on informal ICT use and its impact on clinical social work. The purpose of the current study was to examine social workers' informal ICT use with clients between sessions as an adjunct to face-to-face practice, and thus contribute to the paucity of literature on this phenomenon. An online survey, #socialwork, was distributed among social workers with direct client contact, across Canada (n = 2609) and the U.S. (n = 1225), to capture informal ICT use. Findings indicate that informal ICT use by social workers is ubiquitous and consistent across both countries. Older and more experienced practitioners, and social workers in private practice settings and who provide psychotherapy were among the highest users. The findings related to social media and increased interaction outside of work hours reveal that ICTs are impacting the working relationship. Many of the social workers were not aware of a workplace policy on informal ICT use and report that they do not talk with either their supervisors or peers about their informal ICT use with clients. Given the frequency of informal ICT use within social work practice, significantly more attention is required in research, education and practice.

Keywords Information and communication technology · Social work and social media · Social work · Working relationship · Clinical social work · Ecological systems framework · Technological acceptance model

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Information and communication technologies (ICTs) have led to transformative changes across professional fields of practice including social work (Lewis et al. 2000). Building on our previous work (Mishna et al. 2012, 2014, 2017), the purpose of the current study was to empirically study social workers' informal use of ICTs with clients between sessions as an adjunct to face-to-face practice, and thus increase understanding of this phenomenon.

ICTs in Clinical Practice

ICTs have impacted clinical social work practice in three primary ways (Mishna et al. 2017: (1) *Formal Online ICTs* online communication is the single mode of treatment through formal standalone ICT programs (e.g., e-counseling, tele-psychology/psychiatry) that have been extensively researched (Boydell et al. 2014; Richards and Viganó 2013). (2) *Formal Blended ICTs* online exercises are purposefully implemented to replace some face-to-face sessions (van der Vaart et al. 2014). Both the online and

face-to-face components are formal, structured and monitored by a practitioner (Kooistra et al. 2014; van de Wal et al. 2015). Online elements include homework assignments, diary entries (Murdoch and Connor-Greene 2000); email reminders, text message monitoring (Aguilera and Muñoz 2011); psycho-educational activities (Luxton et al. 2011); and assessment and testing instruments (Butcher et al. 2004; Gonchar and Adams 2000). (3) *Informal Intersession ICTs* practitioners use ICTs as an informal adjunct to face-to-face practice. The primary (and formal) modality is face-to-face (Mishna et al. 2012, 2014) with communication (usually between sessions) occurring through email, texting or social media. The focus of this paper is informal ICT use, which is not meant as a substitute for face-to-face practice, but rather, may act as an unstructured (and often unplanned) added component.

Findings from our previous research suggest that due to the rapid growth of mobile ICTs, practitioners and managers increasingly consider informal ICT use an inevitable reality in contemporary practice (Mishna et al. 2012, 2014). Moreover, preliminary research indicates that ICT-enhanced social work interventions show positive outcomes (Chan and Holosko 2016), such as enhancing the working relationship (Mishna et al. 2012, 2014). ICTs may offer continuity by extending the session, enabling clients to process their thoughts and emotions and forecasting issues to discuss in future sessions (Mishna et al. 2012, 2014). This may create ethical uncertainty, however, due to issues related to boundary management, unanticipated contact and therapeutic communication (Fantus and Mishna 2013). Ryan and Garrett (2018) conducted a small-scale mixed methods study (n = 34) on the use of Facebook, email and text messaging by social workers in the Republic of Ireland. Concerns were identified related to connecting with clients through Facebook and having access to the personal online information of both the client and social worker. Moreover, there was disagreement regarding the use of email and text messaging to communicate with clients. Articulated as a particular concern was the management of social workers' increasing accessibility to clients.

While identified conceptually, ethical concerns require further empirical examination and include the effect of phenomena, such as contact outside of working hours and requests for social networking friendships on professional boundaries (Chan 2016). Previous research and scholarship have indicated the need for additional exploration, research and guidance in social work to address emerging and complex ethical and relational considerations of ICT use (Finn 2006; Kirwan and Guckin 2014; Mishna et al. 2012; Perron et al. 2010). Research is lacking on informal ICT use in social work practice and its impact on the working relationship is relatively unexplored in clinical social work (Fantus and Mishna 2013).

There is additional concern that ICT use may reproduce and heighten social inequality as certain populations are excluded from participation (Nieminen 2016). With the increased use of ICTs in social work, it is important that professionals attend to differential access to ICT resources (Howard et al. 2010), based on income, education, rural/urban location, immigration status, age (Haight et al. 2014) and an inner-city divide in dense U.S. urban centres (Howard et al. 2010). While the digital divide has been shrinking in Canada and the U.S., it has not disappeared (Howard et al. 2010). If the digital divide in social work practice is adequately understood and addressed, increase in ICT use has the potential to empower clients and challenge economic and social exclusion (Parrott and Madoc-Jones 2008).

Theoretical Approach

This study was informed by three overlapping frameworks.

(1) Ecological Systems Theory situates individuals in their social and environmental contexts, recognizing the many factors influencing wellbeing (Bronfenbrenner 1979). Ecological Systems Theory has been expanded by incorporating ICTs to keep pace with ICT's influence (Johnson 2010; Martin and Alaggia 2013). Since ICTs have influenced all aspects of human interaction, including social work practice (Foeday 2011), the implications of ICTs, both positive and problematic, must be understood (Perron et al. 2010).

(2) The technology acceptance model (TAM) is an applied framework which enhances understanding of attitudes towards and use of technology in professional contexts (Bullock and Colvin 2015; Chau 1996). The increased use of ICTs (particularly mobile ICTs) is driven by two factors: perceived usefulness and perceived ease of use by both practitioners and clients (Bullock and Colvin 2015; Chau 1996; Phan 2011). Practitioners determine the perceived usefulness by how they suppose that ICTs will enhance their job performance, pertaining to productivity, effectiveness and quality of work. Clients determine perceived usefulness by how they suppose ICTs will facilitate and enhance the effectiveness of the service they access and receive (Cranen et al. 2011). Perceived Ease of Use is the belief by practitioners and clients of how easy/difficult or simple/complex ICTs are to use. The TAM explicates whether the benefits of using ICTs in services including social work outweigh the effort by social workers and clients to use the application. Moreover, TAM identifies that social influence (i.e., the ways ICTs are encouraged or discouraged in society and organizations as well as cognitive instrumental processes including relevance, quality, and

results, determine the uptake of technology (Carrilio 2007; Venkatesh and Davis 2000; Wilson and Lankton 2004).

(3) The social worker and client working relationship is at the core of clinical practice, and a key determinant of outcomes (Wampold and Budge 2012). Evidence suggests that the working relationship is the most crucial factor associated with client outcomes (Falkenstrom et al. 2014). With the exponential increase of ICTs, a critical question to explore is whether and how the working relationship is affected by such use in social work practice. There is a striking lack of research on whether and how the informal use of ICTs in face-to-face practice affects the working relationship.

Current Study

In the current study, we examined the nature and scope of informal ICT use among social workers across Canada and the U.S. A cross-sectional survey design was used to gather information on the frequency, nature and scope of informal ICT use in face-to-face practice. Data were collected through an online survey, #socialwork, which was distributed to social workers between May and December 2017. Professional social work organizations facilitated the distribution of the survey to members across Canada (n = 2609) and the U.S. (n = 1225). Canada and the U.S. were both included in this study for several reasons: (1) similarities in the ubiquity of ICT use that has informed communication, education and scholarship in social work (e.g., Boydell et al. 2014); (2) attempts in both countries to address ethical and clinical issues due to ICTs (National Association of Social Workers and the Council on Social Work Education in the U.S., and the Canadian Association of Social Workers); and (3) a lack of research in both Canada and the U.S. on informal ICT use in social work practice.

Methods

The research team designed an online survey to administer across the U.S. and Canada through Qualtrics software. The survey was available in both English and French in Canada, and English in the U.S. The University Research Ethics Board granted ethics approval and informed consent was obtained from all individual participants included in the study.

Measures

The team initially reviewed standardized surveys developed to examine ICT use in related fields (Brown et al. 2014; Fang et al. 2018; Goldfarb et al. 2016). A base of questions was created from prior scholarship and the research team's clinical and research expertise. The team made multiple iterations and modifications to ensure the survey would capture relevant data, focusing on face and content validity (Singleton and Straits 2010). Review of scholarship focused on construct validation for the study (Singleton and Straits 2010). To improve reliability and validity the survey was pilot tested with social workers across Canada and the U.S. (n = 47) and adjusted based on feedback.

The #socialwork survey comprises five general sections: *Section 1, Participant Demographics* elicited demographic and professional information. The survey provided 13 options related to ethnicity (U.S. specific options were added for this survey) and 10 categories related to gender. Due to low cell count and taking into consideration consistency among subgroups, many categories were combined for statistical analysis. *Section 2*, *Organizational Factors* inquired as to participants' organizational settings (e.g., hospital, non-profit, private practice). *Section 3*, *Informal ICT Use with Clients* included six questions on whether and for what purposes social workers used informal ICTs to communicate with clients, as well as any associated difficulties and plans to continue informal use of ICTs with clients. Examples of these questions include yes/no questions, "have you interacted with a client through e-mail, text/instant messaging and/or social media between your regular face-to-face service?", and, "overall has informal ICT use caused difficulties?" *Section 4*, *Boundaries* comprised seven questions related to informal ICT interactions between social workers and clients outside of formal work hours, online searching and client "friending" requests through social media. Questions include: "how often do you interact with clients through e-mail, text/instant messaging and/or social media outside of formally scheduled work hours? never, rarely, sometimes, often, very often" and "have you received a 'friend request' from a client on any personal social media account (e.g., Facebook, LinkedIn)? yes, no." *Section 5*, *Supervision and Policy* included four questions that addressed whether and how discussions on informal ICT use took place with supervisors or colleagues, as well as the existence and effectiveness of workplace ICT policies. Examples of questions include: "have you discussed with your supervisor and/or colleagues the informal contact you have had with clients through e-mail, text/instant messaging and/or social media? (Please share any relevant details): yes, but only with my supervisor, yes, but only with my colleagues, yes, with both supervisor and colleagues, no, not applicable, other"; and "is there a policy related to e-mail, text/instant messaging or social media use with clients between regular face-to-face service at your workplace? yes, no, I do not know".

Sample

In Canada, ten provincial social work regulatory bodies (referred to as colleges) and the Association of Social Workers in Northern Canada (ASWNC; Yukon, Northwest Territories, Nunavut) distributed the survey to their members. As the number of accessible social workers through the provincial regulatory body was limited in two provinces (British Columbia, Ontario), additional strategies (e.g., provincial association, social work deans and directors, snowball methods) were used. The survey was distributed through the NASW and the American Association for Psychoanalysis in Clinical Social Work (AAPSCW) in the U.S. To be eligible, participants were registered or licenced social workers (except in areas where the professional designation of social worker is not regulated or there are exemptions, such as in Nunavut, the Yukon and British Columbia and those with a BSW in the U.S.), and had clinical contact with clients in their practice.

Statistical Analysis

SPSS Statistics version 24 was used to conduct univariate and bivariate analysis to obtain a descriptive understanding of informal ICT use in social work practice. The selection of clinical variables included in the analysis was guided by our theoretical frameworks, empirical literature on personal and professional factors, boundaries and policy related to ICT use in social work, and the researchers' clinical experience. Univariate analysis reported the frequencies of each variable (Tables 1, 2). Crosstabs and Chi square analysis were used to explore how participant demographics and organizational factors were related to the informal use of ICTs (Table 1).

Results

Our findings reveal the pervasive nature of informal ICT use; 78.1% (n = 2034) of Canadian social workers who participated and 79.6% (n = 975) of U.S. social workers who participated informally use ICTs to interact with clients, whereby the primary treatment mode is face-to-face. Furthermore, the results indicate tremendous similarities and consistencies between Canadian and U.S. social workers.

Descriptive Analysis of Demographic and Organizational Factors

According to Chi square analysis of the participant demographics, age [Canada: X^2 (2, N = 2382) = 15.821, p < .01, U.S.: X^2 (4, N = 1136) = 12.844, p < .05]; and years of practice [Canada: X^2 (7, N = 2404) = 18.004, p < .05, U.S.: X^2 (7, N = 1158) = 23.396, p < .01] were significantly related

to informal ICT use with clients in Canada and the U.S. Participants under the age of 30 used it less frequently than the other age groups (Table 1). Level of education was significantly related to informal ICT use only in Canada [X^2 (2, N = 2424) = 7.760, p < .05] with social workers educated at a master or doctorate level reporting higher informal ICT use than those with bachelor or other education. Ethnicity was significantly related to informal ICT use only in the U.S. [X^2 (3, N = 1153) = 13.651, p < .01] with Indigenous (50%, n = 3) and Black (67.2%, n = 39) social workers, as well as those of another ethnic background (Asian, Latin American, Indian-Caribbean, Middle Eastern, mixed or unidentified) (73.5%, n = 97) reporting less informal ICT use than social workers who identified as White (81.4%, n = 779) (Table 2).

Several organizational factors were related to informal ICT use, such as social work role in both Canada [X^2 (5, N = 2599) = 26.856, p < .001] and the U.S. [X^2 (5, N = 1224) = 50.287, p < .001], with social workers who indicated they offer psychotherapy reporting consistently high rates of informal ICT use. Social work setting was significantly related to informal ICT use for Canada [X^2 (8, N = 2603) = 93.627, p < .001] and the U.S. [X^2 (8, N = 1224) = 126.834, p < .001], with social workers in private practice consistently high in both countries. Working with certain age groups was significantly related to informal ICT use with clients among both Canadian and U.S. participants, although not consistently. For example, in Canada working with clients 65 and older was significantly related to informal ICT use [X^2 (1, N = 2604) = 13.371, p < .001] while it was not for U.S. participants working with the same age group (Table 1). Geographical setting was related to ICT use for both Canadian [X^2 (3, N = 2603) = 9.765, p < .05] and U.S. participants [X^2 (3, N = 1223) = 10.644, p < .05], with social workers working in rural or remote settings less likely to engage in informal ICT use (Table 1).

Univariate Analysis of Informal ICT Use, Boundaries and Supervision and Policy

Seventy-eight percent (n = 2034) of Canadian social workers and 79.6% (n = 975) of U.S. social workers informally use ICTs to interact with clients (Table 2). Both client and social worker (63.8% [n = 1282] Canadian, 71.8% [n = 695] U.S.) initiated ICT use. The vast majority (95.9%) of participants who used informal ICTs with clients indicated that they will continue to do so. While only a small proportion of social workers reported having difficulties with informal ICT use with clients [10.2% (n = 250) Canadian, 7.8% (n = 91) U.S.], less than half of these stated that these difficulties had been resolved [55.9% (n = 138) Canadian, 60.4% (n = 55) U.S.].

Thirty-six percent of both Canadian (35.9%, n = 1464) and U.S. (36.2%, n = 435) participants reported searching online for client information. Of these, over half reported

Table 1 Descriptive analysis of demographic and organizational factors

	Canada (n = 2609)			U.S. (n = 1225)		
	Informal ICT use			Informal ICT use		
	No (%)	Yes n (%)	X^2	No n (%)	Yes n (%)	X^2
Participant demographics						
Age						
0–29	107 (29.5%)	256 (70.5%)	15.821**	25 (36.8%)	43 (63.2%)	12.844*
30–39	149 (19.8%)	603 (80.2%)		40 (20.1%)	159 (79.9%)	
40–49	128 (21.4%)	470 (78.6%)		38 (21.3%)	140 (78.7%)	
50–59	94 (19.8%)	380 (80.2%)		50 (19.7%)	204 (80.3%)	
60 and over	47 (24.1%)	148 (75.9%)		79 (18.1%)	358 (81.9%)	
Gender						
Man/male	71 (24.5%)	219 (75.5%)	1.196	44 (21.6%)	160 (78.4%)	0.259
Woman/female	460 (21.8%)	1654 (78.2%)		188 (20.1%)	749 (79.9%)	
Non-binary	5 (25.0%)	15 (75.0%)		3 (18.8%)	13 (81.3%)	
Ethnicity						
Indigenous	13 (21.7%)	47 (78.3%)	0.046	3 (50%)	3 (50%)	13.651**
Black	11 (22.4%)	38 (77.6%)		19 (32.8%)	39 (67.2%)	
White	455 (22.1%)	1601 (77.9%)		178 (18.6%)	779 (81.4%)	
Other	54 (21.6%)	196 (78.4%)		35 (26.5%)	97 (73.5%)	
Highest level of social work degree						
BSW, certificate or diploma	294 (24.4%)	909 (75.6%)	7.760*	4 (26.7%)	11 (73.3%)	1.118
MSW or PhD in social work	229 (19.7%)	933 (80.3%)		223 (20.5%)	864 (79.5%)	
Other and no formal education in social work	14 (23.7%)	45 (76.3%)		9 (15.8%)	48 (84.2%)	
How many years have you been practicing?						
0–4	141 (28.0%)	362 (72.0%)	18.004*	43 (34.4%)	82 (65.6%)	23.396**
5–9	106 (20.5%)	411 (79.5%)		46 (22.7%)	157 (77.3%)	
10–14	77 (19.2%)	324 (80.8%)		21 (16.2%)	109 (83.8%)	
15–19	54 (17.9%)	248 (82.1%)		22 (20.2%)	87 (79.8%)	
20–24	48 (19.7%)	196 (80.3%)		22 (17.2%)	106 (82.8%)	
25–29	42 (24.7%)	128 (75.3%)		25 (18.1%)	113 (81.9%)	
30–34	37 (21.9%)	132 (78.1%)		31 (23.7%)	100 (76.3%)	
35-highest	24 (24.5%)	74 (75.5%)		28 (14.4%)	166 (85.6%)	
Organizational factors						
Role						
Counselling	215 (22.2%)	755 (77.8%)	26.856***	39 (26.7%)	107 (73.3%)	50.287***
Psychotherapy	78 (16.1%)	406 (83.9%)		111 (14.5%)	654 (85.5%)	
Case management	132 (20.2%)	520 (79.8%)		48 (27.7%)	125 (72.3%)	
Community organization/development and management/administration and program design/evaluation	42 (25.8%)	121 (74.2%)		15 (40.5%)	22 (59.5%)	
Consultation	40 (33.6%)	79 (66.4%)		7 (25.9%)	20 (74.1%)	
Other	60 (28.4%)	151 (71.6%)		29 (38.2%)	47 (61.8%)	
Practice setting						

Table 1 (continued)

	Canada (n = 2609)			U.S. (n = 1225)		
	Informal ICT use			Informal ICT use		
	No (%)	Yes n (%)	X^2	No n (%)	Yes n (%)	X^2
Social service agency/org.	64 (19.7%)	261 (80.3%)	93.627***	32 (26.0%)	91 (74.0%)	126.834***
Child welfare & group home	54 (21.8%)	194 (78.2%)		1 (5.9%)	16 (94.1%)	
Private practice	26 (7.0%)	348 (93.0%)		52 (8.9%)	533 (91.1%)	
Hospital	177 (32.4%)	369 (67.6%)		56 (41.8%)	78 (58.2%)	
Government	60 (26.5%)	166 (73.5%)		12 (30.0%)	28 (70.0%)	
Community based heath	111 (24.1%)	349 (75.9%)		32 (29.4%)	77 (70.6%)	
Court/criminal justice/corrections	7 (21.2%)	26 (78.8%)		14 (63.6%)	8 (36.4%)	
College/university and elementary/secondary	18 (15.5%)	98 (84.5%)		20 (25.0%)	60 (75.0%)	
Other	52 (18.9%)	223 (81.1%)		30 (26.3%)	84 (73.7%)	
Client age groups (check all that apply)						
0–10						
No	442 (22.7%)	1505 (77.3%)	2.977	199 (20.7%)	761 (79.3%)	0.282
Yes	128 (19.5%)	529 (80.5%)		51 (19.2%)	214 (80.8%)	
11–19						
No	365 (23.9%)	1165 (76.1%)	8.393**	163 (22.7%)	556 (77.3%)	5.484*
Yes	205 (19.1%)	869 (80.9%)		87 (17.2%)	419 (82.8%)	
20–35						
No	231 (23.0%)	773 (77.0%)	1.196	99 (28.3%)	251 (71.7%)	18.720***
Yes	339 (21.2%)	1261 (78.8%)		151 (17.3%)	724 (82.7%)	
36–49						
No	196 (20.5%)	762 (79.5%)	1.813	92 (27.9%)	238 (72.1%)	15.519***
Yes	374 (22.7%)	1272 (77.3%)		158 (17.7%)	737 (82.3%)	
50–64						
No	258 (20.1%)	1028 (79.9%)	4.961*	104 (23.8%)	333 (76.2%)	4.808*
Yes	312 (23.7%)	1006 (76.3%)		146 (18.5%)	642 (81.5%)	
65 and older						
No	292 (19.4%)	1216 (80.6%)	13.371***	140 (22.0%)	496 (78.0%)	2.096
Yes	278 (25.4%)	818 (74.6%)		110 (18.7%)	479 (81.3%)	
Geographical setting in which you work						
Urban	338 (20.6%)	1301 (79.4%)	9.765*	118 (20.6%)	454 (79.4%)	10.644*
Suburban	86 (20.6%)	332 (79.4%)		73 (16.6%)	367 (83.4%)	
Rural	130 (26.4%)	362 (73.6%)		53 (27.2%)	142 (72.8%)	
Remote	16 (29.6%)	38 (70.4%)		5 (31.3%)	11 (68.8%)	

*p < 0.05, **p < 0.01, ***p < 0.001

having done so to gather additional assessment information [60.7% (n = 537) Canadian, 55.6% (n = 242) U.S.]; 39.6% (n = 350) of Canadian and 28% (n = 122) of U.S. participants searched due to concern about a client, such as suicidal ideation; and 22.4% (n = 198) of Canadian and 27.6% (n = 120) of U.S. participants searched online out of curiosity. Thirty-five percent (34.7%, n = 870) of Canadian and one-third (33.1%, n = 396) of U.S. participants believed it was not appropriate to conduct online searches about a client.

Few participants were comfortable with a client accessing their online information [16.5% (n = 416) Canadian, 20% (n = 240) U.S.] (Table 2).

Approximately half of the participants had received a "friend request" from a client through a personal social media account [44.5% (n = 1119) Canadian, 55.7% (n = 669) U.S.]. Of those participants who had received a friend request from a client, just over one-third (34.1%, n = 379) of Canadian participants and one-third (32.8%, n = 218) of

Table 2 Univariate analysis of informal ICT use, boundaries and supervision and policy

	Canada (n = 2609) n (%)	United States (n = 1225) n (%)
Informal ICT use with clients between face-to-face sessions		
Yes	2034 (78.1%)	975 (79.6%)
Who initiated this contact through ICTs?		
Social worker	173 (8.6%)	41 (4.2%)
Client	527 (26.2%)	223 (23.0%)
Both	1282 (63.8%)	695 (71.8%)
Other	27 (1.3%)	9 (0.9%)
Purpose of informal ICT use with clients		
Scheduling appointments	1655 (81.4%)	827 (84.8%)
Check in or brief updates	1108 (54.5%)	531 (54.5%)
Additional practical information/resources	1458 (71.7%)	596 (61.1%)
Receiving additional therapeutic information	376 (18.5%)	191 (19.6%)
Other	211 (10.4%)	85 (8.7%)
Has informal ICT use caused difficulties?		
Yes	250 (10.2%)	91 (7.8%)
Was the difficulty resolved?		
Yes	138 (55.9%)	55 (60.4%)
Will you continue informal ICT use?		
Yes	1880 (95.9%)	916 (95.9%)
Boundaries		
How often do you interact outside of formal work hours through ICT with clients?		
Never	979 (48.8%)	169 (17.5%_
Rarely	474 (23.6%)	277 (28.6%)
Sometimes	331 (16.5%)	332 (34.3%)
Often	173 (8.6%)	143 (14.8%)
Very often	51 (2.5%)	47 (4.9%)
Have you searched for online information about a client?		
Yes	1464 (35.9%)	435 (36.2%)
Why have you searched for online information about a client?		
Client request	160 (18.1%)	98 (22.5%)
Workplace/supervisor request	78 (8.8%)	29 (6.7%)
Gather additional assessment information	537 (60.7%)	242 (55.6%)
Curiosity	198 (22.4%)	120 (27.6%)
Concern (e.g. suicidal ideation)	350 (39.6%)	122 (28.0%)
Other	179 (20.2%)	101 (23.2%)
Is it appropriate to look up online information about a client?		
No	870 (34.7%)	396 (33.1%)
Yes	336 (13.4%)	221 (18.4%)
Sometimes	1303 (51.9%)	581 (48.5%)
Are you comfortable with a client accessing you online?		
Yes	416 (16.5%)	240 (20.0%)
Have you received a 'friend request' from a client on any personal social media account (e.g. Facebook, Linked In)?		
Yes	1119 (44.5%)	669 (55.7%)
How did you respond to this "friend request"?		
Accepted and did nothing further	41 (3.7%)	23 (3.5%)
Accepted and discussed at the next meeting	16 (1.4%)	9 (1.4%)
Decline/ignored and did nothing further	379 (34.1%)	218 (32.8%)
Declined/ignored and discussed at the next meeting	485 (43.7%)	302 (45.4%)

Table 2 (continued)

	Canada (n=2609) n (%)	United States (n=1225) n (%)
Declined/ignored and sent a private message explaining why	118 (10.6%)	58 (8.7%)
Other	71 (6.4%)	55 (8.3%)
Supervision and policy		
Have you discussed informal ICT use with supervisor and/or colleagues?		
No	988 (39.6%)	508 (42.7%)
Yes, but only with supervisor	233 (9.3%)	107 (9.0%)
Yes, but only with my colleagues	160 (6.4%)	138 (11.6%)
Yes, with both supervisor and colleagues	1034 (41.4%)	385 (32.4%)
Other	81 (3.2%)	52 (4.4%)
Is there a policy related to e-mail, text/instant messaging or social media use with clients in between regular face-to-face service at your workplace?		
Yes	1237 (47.4%)	548 (46.4%)
In general, are you aware of policy, privacy laws or regulations related to privacy or confidentiality in the use of e-mail, text/instant messaging or social media relevant to your practice?		
At your work place		
No	483 (20.0%)	240 (21.4%)
Yes	1624 (67.2%)	809 (72.0%)
Aware, but does not know it	311 (12.9%)	74 (6.6%)
Provincial/state association or college		
No	748 (31.2%)	381 (34.8%)
Yes	1064 (44.4%)	490 (44.8%)
Aware, but does not know it	583 (24.3%)	223 (20.4%)
Provincial/state government level		
No	1009 (42.6%)	401 (37.0%)
Yes	742 (31.3%)	436 (40.3%)
Aware, but does not know it	616 (26.0%)	246 (22.7%)
Through a national association		
No	1084 (45.8%)	251 (22.1%)
Yes	587 (24.8%)	644 (56.8%)
Aware, but does not know it	696 (29.4%)	239 (21.1%)
Federal government level		
No	1224 (52.2%)	381 (34.9%)
Yes	417 (17.8%)	448 (41.0%)
Aware but does not know it	703 (30.0%)	26 (24.1%)
For those with no workplace policy, would a policy be helpful?		
Yes	1042 (83.2%)	458 (71.7%)

U.S. participants declined the request and did not follow up with the client about the request. Participants identified that they had interacted with clients outside of their scheduled work hours through ICTs. Just under one-half of Canadian participants (48.8%, n=979) and only 17.5% (n=169) of U.S. participants indicated that they had never interacted with a client during their personal time.

Forty percent (39.6%, n=988) of Canadian participants and 42.7% (n=508) of U.S. participants did not talk about their informal ICT use with supervisors or colleagues. Just under one-half identified having a workplace policy on informal ICT use [47.4% (n=1237) Canadian, 46.4% (n=548) U.S.] (Table 2). Social workers were more frequently aware of the content of policy regarding privacy or confidentiality in ICT use at their workplace [67.0% (n=1624) Canadian, 72.0% (n=809) U.S.] than at other levels, including through a national professional association [24.8% (n=587) Canadian, 56.8% (n=587) U.S.] (Table 2).

Discussion

To our knowledge, the current study of informal ICT use is the only large-scale, international study of informal ICT use, and one of the first to examine its use in social work practice. Our study findings indicate that social worker's informal ICT use with clients is ubiquitous and confirm the similarities and consistencies of such use by social workers across Canada and the U.S. A significant majority of social workers in both Canada and the U.S. reported using informal ICTs to interact with clients whereby the primary mode is face-to-face. Despite the prevalent use of informal ICT in face-to-face social work practice, there is a lack of scholarly work on implications for practice (Clough and Casey 2011). According to our findings, social workers in Canada and the U.S. utilize informal ICTs across all sectors, all fields of practice and with all populations. Older and more experienced professionals and those working in a private practice setting and providing psychotherapy tended to be among the highest users of informal ICTs with clients. With this proliferation of informal ICT use, it is essential that we understand the implications, including associated benefits and risks.

Theoretical frameworks can help contextualize our findings of the pervasive use of informal ICTs in social work. The study results provide strong support for the efforts by researchers to extend the ecological systems framework by incorporating the cyber world (Johnson 2010; Martin and Alaggia 2013). Future research is needed to further determine where and how the cyber elements fit and interact in the ecological systems model. The Technology Acceptance Model offers insight into the effects of the rapid expansion of ICT's, particularly mobile devices, which is evident in the current study as well as our previous research (Mishna et al. 2012, 2014). The universal use of mobiles across all ages and throughout the globe highlights the growing acceptance of ICTs in all areas of life. It is not surprising therefore that the changes in social work with respect to informal ICT use are dramatic, across both Canada and the U.S.

Working Relationship

The reported prevalence of informal ICT use in our study among social workers in Canada and the U.S. shows that informal ICT use has significantly altered the working relationship between social workers and clients. The working relationship is highly influential in treatment outcomes (Horvath et al. 2011) and considered central to social work practice (Hollis 1970). In their discussion of teaching social work practice and theory, Dean and

Fleck-Henderson (1992) highlight Harry Stack Sullivan's declaration, "you can not make a statement about the client, only about the client with you" (p. 13). Within the working relationship clients build interpersonal skill and capacity (Schottenbauer et al. 2008). This relationship is influenced by factors such as transference, countertransference, and boundaries, each of which has the potential to be affected by informal and unplanned ICT use. It is therefore critical to understand the benefits and challenges of informal ICT as well as the effects on this relationship. Research on formal ICT use has shown no difference in the working relationship when compared with face-to-face treatment (Freeman et al. 2013; Hanley and Reynolds 2009; Holmes and Foster 2012; Preschl et al. 2011).

In the current study, over 35% of practitioners reported searching for clients online. A perplexing finding is that participants expressed greater comfort searching for their clients online than they were with their clients searching for them online. With respect to clients searching practitioners online, however, Gabbard et al. (2011) assert that since information a client obtains through the Internet is public, practitioners "cannot block certain aspects of their lives from their patients, and they must learn to adapt to the new world that cyberspace has created'' (pp. 171–172).

Notwithstanding practitioners' views about online sharing and the public nature of online information, NASW guidelines stipulate that before conducting an electronic search on a client, client consent should be obtained, except in instances for which the purpose is to protect the client or others from "serious foreseeable and imminent harm or other compelling professional reason" (NASW 2018, p. 9). While in the current study social workers indicated that they often conducted searches for assessment or safety reasons, it is not clear that these situations would meet the NASW criteria. Moreover, approximately one-quarter of the social workers in our study reported conducting an online search on a client out of curiosity. The fairly recent ability of clients and practitioners to search about the other online has important implications for the working relationship, implications that require additional study. The findings regarding online searches for client information and clients accessing social workers' online information support Ryan and Garrett's (2018) findings that social workers are concerned with the complex ethical issues related to the accessibility of online information, along with the potential for blurring of boundaries.

There are unexamined implications of informal ICT use for the working relationship. For example, clients are seeking online contact with social workers, as indicated by our finding that approximately half of the practitioners had received a friend request on a personal account, from a client. According to the results many social workers do not follow up with clients after clients initiate contact on social

media, such as a "friend" request. Gabbard (2001) notes that all extra communication should be brought explicitly into the work. It is important that such issues be discussed and examined, both in social work education and practice. Harrington (2015) ponders the implications of expanding the working relationship as a result of cyber interaction between the clinician and client. She recognizes both that there are complexities and uncertainties inherent in addressing the relevant questions and that treatment exists in and must therefore grapple with and adapt to the context of the broader culture. With the advent of ICTs, both practitioners and clients (individuals, families and groups) have less control over the information that may be inadvertently shared, such as personal details available on social media. In addition to knowledge of the time of day or night at which a social worker responds to an email or text, the meaning that clients may attach to this information cannot be controlled (Bhuvaneswar and Gutheil 2008; Kimball and Kim 2013).

It is inevitable that clinicians and clients will increasingly interact through ICTs (Harrington 2015; Mishna et al. 2012, 2014). Moreover, there are important benefits to the increased use of ICTs in therapeutic situations, such as offering greater availability to clients in crisis or allowing regular contact for those clients who may benefit from this level of contact (Knight 2015). Preliminary research has indicated that ICT use can offer such benefits as providing consistency, continuity and empowerment for clients (Dunn 2012; Mishna et al. 2012, 2015). ICTs can allow a continuation of the therapeutic space and for some clients a safe physical distance within which to continue reflection or emotional expression. A participant practitioner in a previous study observed that ICTs can be beneficial in developing a relationship with youth who find it difficult to engage: "It supports that initial ability to engage and build rapport, which clients really respect and appreciate" (Mishna et al. 2014, p. 183). The use of ICT therapeutically can provide a flexible opportunity to build rapport and continue the therapeutic process beyond the face-to-face hours (Mishna et al. 2014). Issues related to therapeutic boundaries however, should be explicitly discussed and negotiated (Kezelman and Stavropoulos 2012; Knight 2015), particularly regarding expectations of a practitioner's availability beyond formal work hours (Peterson and Beck 2003). The working relationship can be enriched when social worker and client discuss expectations regarding responding outside of work hours (Mishna et al. 2012, 2014; Peterson and Beck 2003).

Social worker self-care typically includes attending to professional roles and boundaries, maintaining work-life balance and discussing reactions to clients and clinical situations within clinical supervision (Newell and Nelson-Gardell 2014). The results of the current study reveal that with respect to informal ICT use, however, social workers do not consistently engage in these methods of self-care. Over 50% of social workers had interacted with clients outside of formal work hours and close to 40% had not discussed their informal ICT use with either supervisors or peers. The Technology Acceptance Model helps contextualize these findings within the context of the pervasive acceptance of technology and the accompanying blurring of professional and personal boundaries across society. Further research is required to understand the reasons social workers are not discussing their informal ICT use and to examine the impact of clients' increased access to social workers (i.e., outside of formal work hours). Moreover, additional examination of the effects of the ubiquitous nature of ICTs on professional boundaries, the working relationship and self-care is needed. It is critical to recognize the impact of clients' increased access to social workers. In the past, boundaries were more easily maintained through scheduled sessions and office based landline phones (Bhuvaneswar and Gutheil 2008). We must understand whether and how social workers address issues related to therapeutic boundaries and informal ICT use with their clients.

Differential Access

Participant ethnicity was significantly related to informal ICT use in the U.S., with social workers who identified as Indigenous, Black or another ethnicity engaging in informal ICT use at a significantly lower rate than social workers who identified as White. Social workers in rural or remote settings were less likely to engage in informal ICT use, a pertinent finding in light of literature which supports the use of ICTs to facilitate services for those where geography is a barrier to access (Csiernik et al. 2008). Differential access to service due to unequal access to ICT resources is a corresponding issue about which practitioners must be aware and address as ICT use increases in social work (Howard et al. 2010). It is incumbent upon our profession to contextualize ICT use within an understanding of this differential access based on such factors as income, education, rural/urban location, immigration status, and age (Haight et al. 2014), as well as an inner-city divide in dense U.S. urban centres (Howard et al. 2010). Despite the proliferation of ICT use understood through the Technology Acceptance Model there remains differential access that cannot be ignored.

Although ethnicity did not emerge as a significant predictor of ICT use in Canada, this finding requires careful consideration. Specific policy focused on digital literacy and cultural content in Canada has been effective in addressing differential ICT access (Howard et al. 2010). Once individuals overcome barriers to ICT use, such as for example the effects of low income, their online use matches peers without those barriers (Haight et al. 2014). Canada's vast geography, particularly remote communities, poses challenges to internet use including the need for appropriate infrastructure and

culturally relevant content (Howard et al. 2010; McMahon et al. 2011). Indigenous participants in Canada identified using informal ICT at the same rate as other ethnic groups. While Haight et al. (2014) found similar results, they noted that their data did not include people residing in the territories or on reserves. While our study was distributed through the Association of Social Workers in Northern Canada, representation from this group of social workers was low. Our survey was distributed and completed electronically, effectively capturing those participants who have overcome barriers to ICT use and potentially missing an important population of practitioners. Particularly in light of the finding that social workers in rural areas are less likely to use informal ICTs, there is a need for ongoing study of the implications of informal ICT use with specific groups across Canada and the U.S.

ICT Training and Support

Despite ubiquitous informal ICT use, social workers receive very little education, preparation and support to work this way (Perron et al. 2010). Of concern, findings revealed that in both Canada and the U.S., less than half of the participants identified a workplace policy on informal ICT use. Without policies and guidelines that capture the complexities of informal ICT use, social workers are uncertain about how to manage situations and are left to address issues on their own (Mishna et al. 2012, 2014).

Compounding the lack of policy or participants' lack of awareness should a policy exist, is the reported lack of supervision and support related to ICT use in participants' practice. For example, approximately 40% of practitioners did not talk about their ICT use with colleagues or supervisors and many social workers reported that they do not seek support or guidance even when facing difficulties. While only a small proportion of practitioners expressed having difficulties in their informal ICT use with clients, it is noteworthy that only half of these felt the difficulty had been resolved. This corresponds with previous findings that without direction, practitioners attempt to develop their understanding and competence through reflecting on their own practice (Mishna et al. 2014).

It is particularly disquieting that clinicians are not talking with supervisors or colleagues in the event that ethical issues arise. These findings, however, are consistent with previous research that professionals appear to be managing the novel and complex boundary considerations of informal ICTs without consultation, and with little training (Finn and Barak 2010; Mishna et al. 2014). Despite considerable attention to ethical concerns in informal ICT use, mention of clinical supervision is rare (e.g., Chan 2016) and when discussed it is typically related to the use of ICT to provide supervision (e.g., Dombo et al. 2014). This absence of supervision in

practice is therefore not new and should be a focus of future research and policy initiatives.

Implications for Practice, Policy, Education and Research

There is a need for increased clinical discussion, supervision and policy on informal ICT use in social work practice. Given the absence of guidance for social workers on informal ICT use, practitioners, supervisors and agency administrators should become knowledgeable, engage in discussions and establish internal policies about ICT use in social work practice. Policy is required that recognizes the ubiquitous nature of informal ICTs, which offers direction on such issues as confidentiality, ethics and boundaries and is simultaneously flexible to the ever changing technology and opportunities it presents (Mishna et al. 2014). Specifically, social workers and organizations should consider how they will manage informal use of ICT communication with clients, explicitly examine boundaries and develop strategies to discuss expectations early on in the therapeutic relationship (Mishna et al. 2014). Practitioners should explicitly identify expectations related to informal ICT use in practice such as what clients can expect in terms of practitioner accessibility outside of work hours, response times and communication through personal social media platforms. It is recommended that these expectations be incorporated into client informed consent for services to ensure discussions occur at the outset of treatment. Based on our previous findings (Mishna et al. 2014) it is recommended that social workers re-examine and revisit these discussions throughout their work with a client. As Mishna and colleagues (2014) identified, organizations should explicitly consider how they will manage client crisis outside of professional hours. Without organizational policy and structure there is a risk of an assumption that individual social workers will informally provide 24 h support for their caseload, without considering whether this is reasonable or responsible (Mishna et al. 2014). Consistent with social work practice generally, practitioners will continually use professional judgement and consider ethical implications in their informal ICT use with clients, requiring both policy and clinical supervision to navigate interactions and the implications for their work. With the technological landscape constantly changing, it is incumbent for supervisors to recognize the ubiquitous nature of informal ICTs in practice and foster discussions about its use in supervision. It is clear from the findings of the current study that informal ICT use is firmly entrenched in social work and it is no longer possible not to engage in its use.

As ICTs facilitate novel and complex interactions between practitioners and clients, there is a need for education to help social workers manage these online interactions. This can take the form of updating social work curricula to

incorporate informal (as well as formal) ICT use (Fang et al. 2014). Continuing professional education programs such as workshops and lectures are needed in order to teach practising social workers about the use of informal ICTs in their practice. This is particularly important given the finding that older and more experienced social workers are currently utilizing ICTs more in their practice. It is important therefore, not to focus solely on students without also offering training for practising social workers.

We echo the call for research to understand ICT use in certain communities, particularly Indigenous communities, those in rural or remote areas including the Canadian territories and on First Nations reserves (Haight et al. 2014) and dense U.S. urban centres (Howard et al. 2010). Furthermore, research is needed to inform policies that promote equal access to ICTs for all clients and social workers, particularly those who are marginalized or living in remote areas. Notably, fewer Canadian practitioners were aware of policy through a national association than U.S. participants (e.g., CASW 2014; NASW 2018), which indicates that despite the consistencies between the two countries there may be unique policy considerations for each.

This paper reports on the finding of phase 1 (an online survey) of #socialwork, which is a multimethod study. The findings discussed here help inform Phase 2 (qualitative methodology involving interviews with social workers and clients in diverse agencies). An aim of Phase 2 is to understand the implications of informal ICT use for the working relationship and professional boundaries as well as reasons social workers are not discussing their informal ICT use with supervisors or and peers.

Limitations

There are several limitations that must be noted. First, despite a large sample size, our study focused on social workers who primarily engage in clinical practice, so sampling strategies and exclusion criteria were targeted toward this group of social workers rather than the overall workforce. Moreover, it was not possible to establish how well our sample represented social workers in each country due to inconsistencies in how partnering organizations defined their memberships, maintained their membership databases, and distributed the study recruitment information to their members. Secondly, there were some significant differences in the sample demographics between Canada and the U.S. which limit direct comparisons. For example, almost half of the U.S. sample worked in private practice versus 15% of the Canadian sample (Table 1). Working in a private practice setting was significantly related to informal ICT use which has implications for comparison. For instance, far fewer social workers in the U.S. than Canada had never communicated with clients through informal ICTs outside of their

formal work hours, a difference likely related to the variance in the samples. To allow for these differences, rather than combining the datasets, the analysis of each country was completed separately and then compared. Third, low cell count in certain cells remained despite grouping participants in categories such as ethnicity and gender. Further combination of categories would lose important but smaller populations. Finally, the study was distributed electronically and as such only captures the responses of those professionals with active email addresses.

Conclusion

Informal ICT use is pervasive across social work practice in both Canada and the U.S. Both practitioners and clients initiate ICT contact and the overwhelming majority of social workers report that they intend to continue to utilize informal ICT. Building on our previous work, the current study demonstrates the importance of increased attention to informal ICT use in the helping professions. Social workers require knowledge and skills relevant to the use of ICTs in practice particularly to maximize the benefits and minimize the challenges. Given the frequency of informal ICT use within social work practice, significantly more consideration is required in research, education and practice. It is no longer a question of whether social workers should use ICTs in clinical practice. Rather, it is critical to consider the context of the constantly changing digital world and develop practice, education and knowledge as well as policies that address the potential benefits and the clinical and ethical concerns of informal ICT use in practice.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

References

Aguilera, A., & Muñoz, R. F. (2011). Text messaging as an adjunct to CBT in low-income populations: A usability and feasibility pilot study. *Professional Psychology, Research and Practice, 42*(6), 472–478. https://doi.org/10.1037/a0025499.

Bhuvaneswar, C. G., & Gutheil, T. G. (2008). E-mail and psychiatry: Some psychotherapeutic and psychoanalytic perspectives. *American Journal of Psychotherapy, 62*(3), 241–261. https://doi.org/10.1176/appi.psychotherapy.2008.62.3.241.

Boydell, K. M., Hodgins, M., Pignatiello, A., Teshima, J., Edwards, H., & Willis, D. (2014). Using technology to deliver mental health services to children and youth: A scoping review. *Journal of the*

Canadian Academy of Child and Adolescent Psychiatry, 23(2), 87–99.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Brown, J., Ryan, C., & Harris, A. (2014). How doctors view and use social media: A national survey. *Journal of Medical Internet Research, 16*(12), e267. https://doi.org/10.2196/jmir.3589.

Bullock, A., & Colvin, A. (2015). Communication technology integration into social work practice. *Advances in Social Work, 16*(1), 1–14.

Butcher, J. N., Perry, J., & Hahn, J. (2004). Computers in clinical assessment: Historical developments, present status, and future challenges. *Journal of Clinical Psychology, 60*(3), 331–345. https://doi.org/10.1002/jclp.10267.

Carrilio, T. E. (2007). Using client information systems in practice settings: Factors affecting social workers' use of information systems. *Journal of Technology in Human Services, 25*(4), 41–62. https://doi.org/10.1300/J017v25n04_03.

CASW. (2014). *Social media use and social work practice* (p. 13). Ottawa: CASW.

Chan, C. (2016). A scoping review of social media use in social work practice. *Journal of Evidence-Informed Social Work, 13*(3), 263–276. https://doi.org/10.1080/23761407.2015.1052908.

Chan, C., & Holosko, M. J. (2016). A review of information and communication technology enhanced social work interventions. *Research on Social Work Practice, 26*(1), 88–100. https://doi.org/10.1177/1049731515578884.

Chau, P. (1996). An empirical assessment of a modified technology acceptance model. *Journal of Management Information System, 13*(2), 185–204.

Clough, B. A., & Casey, L. M. (2011). Technological adjuncts to enhance current psychotherapy practices: A review. *Clinical Psychology Review, 31*(3), 279–292. https://doi.org/10.1016/j.cpr.2010.12.008.

Cranen, K., Veld, R., Ijzerman, M., & Vollenbroek-Hutten, M. (2011). Change of patients' perceptions of telemedicine after brief use. *Telemedicine Journal and e-Health, 17*(7), 530–536.

Csiernik, R., Furze, P., Dromgole, L., & Rishchynski, G. M. (2008). Information technology and social work: The dark side or light side? *Journal of Evidence-Based Social Work, 3*(3–4), 9–25. https://doi.org/10.1300/J394v03n03_02.

Dombo, E. A., Kays, L., & Weller, K. (2014). Clinical social work practice and technology: Personal, practical, regulatory, and ethical considerations for the twenty-first century. *Social Work in Health Care, 53*(9), 900–919. https://doi.org/10.1080/00981389.2014.948585.

Dunn, K. (2012). A qualitative investigation into the online counselling relationship: To meet or not to meet, that is the question. *Counselling and Psychotherapy Research, 12*(4), 316–326. https://doi.org/10.1080/14733145.2012.669772.

Falkenstrom, F., Granstrom, F., & Holmqvist, R. (2014). Working alliance predicts psychotherapy outcome even while controlling for prior symptom improvement. *Psychotherapy Research, 24*(2), 146–159.

Fang, L., Al-Raes, M., & Zhang, V. F. (2018). *The use of social media by faculty and field instructors in social work education*. Presented at the Society for Social Work and Research 22nd Annual Conference, Washington, DC. Retrieved from https://sswr.confex.com/sswr/2018/webprogram/Paper32990.html.

Fang, L., Mishna, F., Zhang, V. F., Wert, M. V., & Bogo, M. (2014). Social media and social work education: Understanding and dealing with thenew digital world. *Social Work in Health Care, 53*(9), 800–814. https://doi.org/10.1080/00981389.2014.943455.

Fantus, S., & Mishna, F. (2013). The ethical and clinical implications of utilizing cybercommunication in face-to-face therapy. *Smith College Studies in Social Work, 83*(4), 466–480. https://doi.org/10.1080/00377317.2013.833049.

Finn, J. (2006). An exploratory study of email use by direct service social workers. *Journal of Technology in Human Services, 24*(4), 1–20. https://doi.org/10.1300/J017v24n04_01.

Finn, J., & Barak, A. (2010). A descriptive study of e-counsellor attitudes, ethics, and practice. *Counselling and Psychotherapy Research, 10*(4), 268–277. https://doi.org/10.1080/14733140903380847.

Foeday J. K. (2011). *Social work in the ICT age: How to ensure ethical and competent practice in the 21st century and beyond*. Academia.edu. Retrieved October 5, 2015 from http://www.academia.edu/1172248/Social_Work_in_the_ICT_Age_How_to_Ensure_Ethical_and_Competent_Practice_in_the_21st_Century_and_Beyond.

Freeman, K. A., Duke, D. C., & Harris, M. A. (2013). Behavioral health care for adolescents with poorly controlled diabetes via Skype: Does working alliance remain intact? *Journal of Diabetes Science and Technology, 7*(3), 727.

Gabbard, G. O. (2001). Cyberpassion: E-rotic transference on the Internet. *The Psychoanalytic Quarterly, 70*(4), 719–737.

Gabbard, G. O., Kassaw, K. A., & Perez-Garcia, G. (2011). Professional boundaries in the era of the Internet. *Academic Psychiatry, 35*, 168–174.

Goldfarb, J., Kayssi, A., Devon, K., Rossos, P. G., & Cil, T. D. (2016). Smartphones and patient care exploring the use of text-based messaging for patient-related communication. *Surgical Innovation, 23*(3), 305–308. https://doi.org/10.1177/1553350615624788.

Gonchar, N., & Adams, J. R. (2000). Living in cyberspace. *Journal of Social Work Education, 36*(3), 587–596. https://doi.org/10.1080/10437797.2000.10779030.

Haight, M., Quan-Haase, A., & Corbett, B. A. (2014). Revisiting the digital divide in Canada: The impact of demographic factors on access to the internet, level of online activity, and social networking site usage. *Information, Communication & Society, 17*(4), 503–519. https://doi.org/10.1080/1369118X.2014.891633.

Hanley, T., & Reynolds, D. (2009). Counselling psychology and the Internet: A review of the quantitative research into online outcomes and alliances within text based therapy. *Counselling Psychology Review, 24*(2), 4–13.

Harrington, R. (2015). Friend request: The analytic frame revisited. *Contemporary Psychoanalysis, 51*(4), 704–726.

Hollis, F. (1970). *Casework: A psychosocial theory* (2nd ed.). New York: Random House.

Holmes, C., & Foster, V. (2012). A preliminary comparison study of online and face-to-face counseling: Client perceptions of three factors. *Journal of Technology in Human Services, 30*(1), 14–31. https://doi.org/10.1080/15228835.2012.662848.

Horvath, A., Del Re, A. C., Fluckiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. *Psychotherapy, 48*(1), 9–16. https://doi.org/10.1037/a0022186.

Howard, P. N., Busch, L., & Sheets, P. (2010). Comparing digital divides: Internet access and social inequality in Canada and the United States. *Canadian Journal of Communication, 35*(1), 109–128.

Johnson, G. M. (2010). Internet use and child development: The techno-microsystem. *Australian Journal of Educational & Developmental Psychology, 10*, 32–43.

Kezelman, C., & Stavropoulos, P. (2012). *"The last frontier": Practice guidelines for the treatment of complex trauma and trauma informed care and service delivery*. Sydney: Adults Surviving Child Abuse (ASCA).

Kimball, E., & Kim, J. (2013). Virtual boundaries: Ethical considerations for use of social media in social work. *Social Work, 58*(2), 185–188. https://doi.org/10.1093/sw/swt005.

Kirwan, G., & Guckin, C. M. (2014). Digital natives or digitally naïve? E-professionalism and ethical dilemmas among newly graduated teachers and social workers in Ireland. *Journal of Technology in Human Services, 32*(1–2), 119–132. https://doi.org/10.1080/15228835.2013.858096.

Knight, C. (2015). Trauma-informed social work practice: Practice considerations and challenges. *Clinical Social Work Journal, 43*(1), 25–37. https://doi.org/10.1007/s10615-014-0481-6.

Kooistra, L. C., Wiersma, J. E., Ruwaard, J., van Oppen, P., Smit, F., Lokkerbol, J., … Riper, H. (2014). Blended vs. face-to-face cognitive behavioural treatment for major depression in specialized mental health care: Study protocol of a randomized controlled cost-effectiveness trial. *BMC Psychiatry, 14*, 290. https://doi.org/10.1186/s12888-014-0290-z.

Lewis, J., Coursol, D., Khan, L., & Wilson, A. (2000). *Life in a dot.com world: Preparing counselors to work with technology*. Retrieved from https://eric.ed.gov/?id=ED449410.

Luxton, D. D., McCann, R. A., Bush, N. E., Mishkind, M. C., & Reger, G. M. (2011). mHealth for mental health: Integrating smartphone technology in behavioral healthcare. *Professional Psychology: Research and Practice, 42*(6), 505.

Martin, J., & Alaggia, R. (2013). Sexual abuse images in cyberspace: Expanding the ecology of the child. *Journal of Child Sexual Abuse, 22*(4), 398–415. https://doi.org/10.1080/10538712.2013.781091.

McMahon, R., O'Donnell, S., Smith, R., Walmark, B., Beaton, B., & Simmonds, J. (2011). Digital divides and the "first mile": Framing first nations broadband development in Canada. *The International Indigenous Policy Journal*. https://doi.org/10.18584/iipj.2011.2.2.2.

Mishna, F., Bogo, M., Root, J., Sawyer, J.-L., & Khoury-Kassabri, M. (2012). "It just crept in": The digital age and implications for social work practice. *Clinical Social Work Journal, 40*(3), 277–286. https://doi.org/10.1007/s10615-012-0383-4.

Mishna, F., Bogo, M., Root, J., & Fantus, S. (2014). Here to stay: Cyber communication as a complement in social work practice. *Families in Society, 95*(3), 179–186. https://doi.org/10.1606/1044-3894.2014.95.2.

Mishna, F., Bogo, M., & Sawyer, J.-L. (2015). Cyber counseling: Illuminating benefits and challenges. *Clinical Social Work Journal, 43*(2), 169–178. https://doi.org/10.1007/s10615-013-0470-1.

Mishna, F., Fantus, S., & McInroy, L. B. (2017). Informal use of information and communication technology: Adjunct to traditional face-to-face social work practice. *Clinical Social Work Journal, 45*, 49–55. https://doi.org/10.1007/s10615-016-0576-3.

Murdoch, J. W., & Connor-Greene, P. A. (2000). Enhancing therapeutic impact and therapeutic alliance through electronic mail homework assignments. *The Journal of Psychotherapy Practice and Research, 9*(4), 232–237.

NASW. (2018). *The NASW code of ethics*. Washington, DC: National Association of Social Workers.

Newell, J. M., & Nelson-Gardell, D. (2014). A competency-based approach to teaching professional self-care: An ethical consideration for social work educators. *Journal of Social Work Education, 50*(3), 427–439. https://doi.org/10.1080/10437797.2014.917928.

Nieminen, H. (2016). Digital divide and beyond: What do we know of Information and Communications Technology's long-term social effects? Some uncomfortable questions. *European Journal of Communication, 31*(1), 19–32. https://doi.org/10.1177/0267323115614198.

Parrott, L., & Madoc-Jones, I. (2008). Reclaiming information and communication technologies for empowering social work practice. *Journal of Social Work, 8*(2), 181–197. https://doi.org/10.1177/1468017307084739.

Perron, B. E., Taylor, H. O., Glass, J. E., & Margerum-Leys, J. (2010). Information and communication technologies in social work. *Advances in Social Work, 11*(2), 67–81.

Peterson, M. R., & Beck, R. L. (2003). E-mail as an adjunctive tool in psychotherapy: Response and responsibility. *American Journal of Psychotherapy, 57*(2), 167–181.

Phan, K. (2011). Exploring technology acceptance for mobile services. *Journal of Industrial Engineering and Management, 4*(2), 339–360.

Preschl, B., Maercker, A., & Wagner, B. (2011). The working alliance in a randomized controlled trial comparing online with face-to-face cognitive-behavioral therapy for depression. *BMC Psychiatry, 11,* 189. https://doi.org/10.1186/1471-244X-11-189.

Richards, D., & Viganó, N. (2013). Online counseling: A narrative and critical review of the literature. *Journal of Clinical Psychology, 69*(9), 994–1011. https://doi.org/10.1002/jclp.21974.

Ryan, D., & Garrett, P. M. (2018). Social work 'logged on': Contemporary dilemmas in an evolving 'techno-habitat'. *European Journal of Social Work, 21*(1), 32–44. https://doi.org/10.1080/13691457.2016.1278520.

Schottenbauer, M. A., Glass, C. R., Arnkoff, D. B., & Gray, S. H. (2008). Contributions of psychodynamic approaches to treatment of PTSD and trauma: a review of the empirical treatment and psychopathology literature. *Psychiatry, 71*(1), 13–34. https://doi.org/10.1521/psyc.2008.71.1.13.

Singleton, R., & Straits, B. C. (2010). *Approaches to social research*. New York: Oxford University Press. (http://go.utlib.ca/cat/7267800).

van de Wal, M. A., Gielissen, M. F., Servaes, P., Knoop, H., Speckens, A. E., & Prins, J. B. (2015). Study protocol of the SWORD-study: A randomised controlled trial comparing combined online and face-to-face cognitive behaviour therapy versus treatment as usual in managing fear of cancer recurrence. *BMC Psychology*. https://doi.org/10.1186/s40359-015-0068-1.

van der Vaart, R., Witting, M., Riper, H., Kooistra, L., Bohlmeijer, E. T., & van Gemert-Pijnen, L. J. (2014). Blending online therapy into regular face-to-face therapy for depression: Content, ratio and preconditions according to patients and therapists using a Delphi study. *BMC Psychiatry, 14,* 355. https://doi.org/10.1186/s12888-014-0355-z.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926.

Wampold, B. E., & Budge, S. L. (2012). The 2011 Leona Tyler award address: The Relationship—And its relationship to the common and specific factors of psychotherapy. *The Counseling Psychologist, 40*(4), 601–623. https://doi.org/10.1177/0011000011432709.

Wilson, E. V., & Lankton, N. K. (2004). Modeling patients' acceptance of provider-delivered e-health. *Journal of the American Medical Informatics Association: JAMIA, 11*(4), 241–248. https://doi.org/10.1197/jamia.M1475.

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