The opinions of school counselors on the use of information and communication technologies in school counseling practices: North Cyprus schools

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ABSTRACT

The goal of this study was to determine school counselors' opinions concerning the use of information and communication technology (ICT) in school counseling practices. The participants were 61 school counselors (54 female, 7 male) who worked in middle (17), high (23), middle/high (19), and primary (2) schools. The mean age was 33.4 years. The Internet Usage Questionnaire was used to collect participants' opinions. The data were analyzed using descriptive statistics, the Mann Whitney U test and the Kruskal Wallis test. The results of this study revealed that the school counselors had overall positive opinions about the use of ICT in school counseling. No significant differences were found according to gender, age, degree, work setting, seniority, or student/school counselor ratio. The results also revealed that school counselors had positive opinions about using web pages and computer-based programs, somewhat positive opinions about using Internet-based interventions, and negative opinions about using online counseling.

1. Introduction

Technological developments in the 21st century, known as the Information Age, have been effective in fields such as education, communications, and business management (Van Horn & Myrick, 2001). As a result, many occupational fields are attempting to improve the quality of their services and customer satisfaction through the use of this rapid development of technology.

Information and communication technologies (ICTs), currently used as an umbrella term for technology, refer to all kinds of visual, aural, printed and written technological tools providing rapid flow of information and thought (Karataş, 2011).

The rapid development of ICT has impacted the psychological counseling profession (Hayden, Poynton, & Sabella, 2008). Computer-based psychological counseling applications increased with the development of ICT (Reimer-Reiss, 2000). Furthermore, as Internet use became widespread, new Internet-based counseling applications through e-mail, web pages, electronic bulletins, online publishing, videoconferencing, and chat rooms appeared (Savaş & Hamamcı, 2010). The terms e-counseling, cyber counseling, online counseling, and Internet counseling are used interchangeably to describe Internet-based counseling applications. The National Board for Certified Counselors (NBCC) uses the term cyber counseling and defines it as follows: "The counselor and the client are in distant and separate environments and communicate through the internet using electronic devices" (Manhal-Baugus, 2001, p.550).

Due to its rapid development, ICT has been included in the pre-service training of counselors. The Counsel for Accreditation of Counseling and Related Educational Programs (CACREP) noted the necessity of acquiring ICT-related proficiencies, including the following:

> . . . "making use of ICT in career counseling applications; presentations through computers or using computer equipment; using computers as a source to help students, families, and educators in the fields of academia, careers, and personal/social matters" (Owen & Korkut-Owen, 2012, p.53).

The role that technology would play in the future of school counseling was first predicted in the 1980s (Grosshandler, 2012). In the 1990s, school counselors were urged to consider computers and related technologies as teammates (Gerler, Ciechalski, & Parker, 1990). Furthermore, it was emphasized that technology would enhance service quality (Casey, 1995; Gerler & Edwin,

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1995; Van Horn & Myrick, 2001). Following the year 2000, it was stated that school counselors must become a part of the technological revolution (Eichenholtz, 2001).

Van Horn and Myrick (2001) indicated that, within the scope of school counseling services, computer technologies can be used to obtain and share information on distant educational institutions, to research universities and professions, to administer counseling interventions, to form networks, and to receive education and supervision. Sabella (2003) shed light on how school counselors can use technology by establishing the following four main fields:

(i) information/resources (utilizing the web as a dynamic information library of words, graphics, videos, and a 3-dimensional environment); (ii) communication/cooperation (utilizing chat rooms, electronic bulletins, cyber classroom environments, video conferences, online conferences, electronic services, and e-mail for people to meet, exchange information, and make joint decisions); (iii) interactive/productivity (transmitting information to computers using software and computer-based programs and using computers to process data); (iv) providing counseling services in cyber space or online interactively.

The literature has shown that counseling continues to develop through its use of ICT (Hines, 2002), that the concept of modern counseling services should be supported (Başak, Uysal, & Aşıcı, 2010), that technology can make counselors' workloads more manageable in schools where the student/school counselor ratios are high (Hayden et al., 2008), and that ICT is accepted as indispensable in school counseling applications (Grosshandler, 2012). However, there are discrepancies in the research findings on the use of ICT in school counseling (Başak et al., 2010).

On the one hand, it has been shown that computer technologies are not used sufficiently in the development of school counseling (Baker, 2001; Glasheen & Campbell, 2009). Several studies have found that school counselors do not believe that ICT use will enhance the quality of services (Cabaniss, 2001), that computers should play an important role in school counseling services (Bluhm & Kishner, 1988), or that computers are applicable in schools (Savaş, 2006). On the other hand, research has shown that the Comprehensive Developmental Counseling Program is especially used in the guidance curriculum guidance syllabus and system support dimensions; however, all dimensions of school counseling program (including guidance curriculum, individual student planning, responsive service and system support) are positively affected by the use of technology (Hayden et al., 2008). Within the framework of school counseling programs, technology can be used to communicate via e-mail, access professional sources, communicate with remote colleagues, obtain vocational support, and receive program and planning support (Bowers, 2002). In the "What School Counselors do with Technology study", Sabella (2005) found that the counselors utilized e-mail and web sites for communication. Similarly, one study showed that in counseling programs, the Internet and e-mail are the second and third most used technology resources after Microsoft Word (Grosshandler, 2012). Furthermore, a separate study discovered that ICT usage increased the productivity of school counselors (Owen & Korkut-Owen, 2012). In a pilot study of a school-based online counseling application, the participants (students and school counselors) showed great interest in the application and welcomed it with enthusiasm (Glasheen & Campbell, 2009). Research has also demonstrated that school counselors use computers and the Internet for student and teacher/administrator groups (Başak et al., 2010). In addition, one study found that school counselors had generally positive opinions about implementing school counseling services through the Internet (Savaş & Hamamcı, 2010).

To date, no data on the use of ICT in school counseling services in North Cyprus have been collected. Nevertheless, in 2012, the Cyprus Turkish Counseling Association and the Cyprus Turkish Secondary Education Teachers Union, (KTOEOS, 2012) reported issues regarding cooperation with other school staff, a lack of physical space (eg. an insufficient number of offices and inadequate equipment to save documents), inadequacies in following innovations in the field, limited tools and resources, and limitations in collaboration with colleagues. In addition, school counselors are under time constraints because of assigned duties that fall outside of their field of work (Beidoğlu & Batman, 2010). It is a noticeable shortfall that there are no studies on the use of ICT among the members of a profession that struggles with the above issues. The use of ICT in school counseling services can be recommended to overcome the above-mentioned problems and enhance the quality of service (Başak et al., 2010). Despite the mixed findings in the literature, the rapid forward movement of ICT is expected to affect, or has already begun to affect, school counseling services in North Cyprus. A computer infrastructure in schools and school counselors' ICT knowledge and skills are prerequisites for such technology use. The opinions of school counselors are essential in planning ICT infrastructure and in-service projects. Hence, the current study aimed to gather and analyze the opinions of school counselors in North Cyprus concerning the use of ICT in counseling services in schools.

The following research questions were addressed:

(1) What are school counselors' general opinions concerning the use of ICT in conducting counseling services?
(2) Are there significant differences in the general opinions of school counselors according to their gender, age, level of education (bachelor's, master's, Ph.D.), tenure, grade level/type of school, or number of students they serve?

2. Methodology

The study employed a descriptive approach to identify school counselors' opinions concerning the use of ICT in school counseling services.

2.1. Participants

A total of 85 school counselors who worked at state and private secondary schools (middle school and high school) participated in the current study. The participants were recruited via e-mail using e-mail addresses that were obtained from the Cyprus Turkish Psychological Counseling and Guidance Association; people with missing e-mail addresses were contacted by telephone. The study questionnaire was e-mailed to the participants. One week later, a reminder to complete and return the survey was e-mailed. The return rate of the scale was 42.5% (34). An additional 27 people were recruited in person to increase the return rate. Therefore, 61 school counselors (71.8%) were reached.

Of the participants, 54 were female (88.5%) and 7 were male (11.5%). Their average age was 33.4 years (age distribution: 24–55). In terms of education level, 67.2% (42) of the participants had undergraduate degrees, 26.2% (16) had a master's degree, and 4.9% (3) had Ph.D.s. Furthermore, 27.8% (17) worked at middle schools, 37.7% (23) worked at high schools, 31.1% (19) worked at middle/high schools and 3.2% (2) worked at primary schools. The participants' average number of working years was 10.4 (working years distribution: 6 months–24 years), with a standard deviation of 6.1. Regarding the type of institution, 18% (11) of the participants worked in vocational high schools, 55.7% (34) worked in standard high/middle schools, 1.6% (1) worked in a science high school, 6.6% (4) worked in Anatolian high schools, and 14.8% (9) worked in college type schools. Of the participants, 9.8% worked

with 150 or fewer students, 59% worked with 151–200 students, and 29% worked with 251–500 students.

2.2. Data gathering tool

To collect data, the current study employed a personal information form that asked the participants questions concerning their demographic variables (gender, age, work years, etc.) and the "Opinion Scale on the Use of Internet in School Counseling Services," which was developed by Savaş and Hamamcı (2010). The scale developers reported a Cronbach's alpha value of 0.89, which reflects the high reliability of the scale ($P < 0.05$). The scale consists of 20 items with the following 4-point Likert format responses: (1) it will be of no use, (2) it will be of some use, (3) it will be quite useful, and (4) it will be very useful. The questions in the scale that were related to the use of ICT in counseling services included topics such as interviewing through e-mail, gathering information from the Internet, using computer programs, scheduling appointments online, using the Internet to discuss problems, forming e-mail groups, counseling online, storing electronic information, videoconferencing, occupational consulting, and communicating with classroom teachers. The minimum score on the scale is 20, and the maximum score is 80. High scores on the scale represent positive opinions concerning online school counseling services (Savaş & Hamamcı, 2010). In the current study, the Cronbach's alpha for the scale was .86.

2.3. Data analysis

The study employed a descriptive approach to identify school counselors' opinions concerning the use of ICT in school counseling services. Additionally, the Mann Whitney U test was used to determine the gender difference among the participants. The Kruskal Wallis test was used to analyze the rest of the variables namely, level of education, length of service, grade level of school, type of school and number of students provided guidance services.

2.4. Findings

The average total score on the Opinion Scale for Using the Internet in school counselings services was 54.36, with a standard deviation of 8.69. The lowest total score on the 20-item 4-point Likert scale was $20 \times 1 = 20$, and the highest total score was $20 \times 4 = 80$. Thus, 80 (maximum value) − 20 (minimum value) = 60 (range). Furthermore, $60/4 = 15$ was calculated as the interval value. Therefore, we established that the participants who scored $20 \leqslant X \leqslant 35$ did not find Internet use to be useful, those who scored $35 \leqslant X \leqslant 50$ found it somewhat useful, those who scored $50 \leqslant (54.36) \leqslant 65$ found it useful, and those who scored $65 \leqslant X \leqslant 80$ found it very useful. According to these data, the participants had positive opinions about providing school counseling services through the Internet.

The point average and standard deviation for each question on the Opinion Scale on the Use of Internet in school counseling services are provided in Table 1.

As shown in Table 1, the school counselors viewed the use of a *web page* for the counseling service as very useful and expressed positive opinions about the corresponding items (items 2 and 18). Similarly, the school counselors reported that *computer-based applications* (items 7, 12, 14, and 15) were very useful.

Concerning the use of *e-mail* (item 10), the participants stated that it was very useful to form e-mail groups and to send useful guidance-related information via e-mail. They reported that e-mail exchanges between school counselors and students (item 1) were somewhat useful.

Table 1
Point average and standard deviation for each question on the opinion scale on the use of Internet in school counseling services.

Scale items	N	X	SS
1. If students exchange e-mails with the counselor to obtain information about counseling services	61	2.87	.94
2. If the school website provides useful information on education, jobs and counseling on personal/social topics	61	3.52	.57
3. If counseling sessions with the counselor are carried out online	61	1.62	.99
4. If assessments such as tests or questionnaires are issued online	61	2.36	.85
5. If certain personal data of students (opinions of classroom teachers and counselors, personal development, etc.) are uploaded and relevant people are able to follow them online	61	2.66	.79
6. If chat rooms for students, teachers, parents, and counselors are opened on the school website for each class	61	2.46	.84
7. If some guidance programs that can provide personal development are implemented through computers	61	3.02	.76
8. If requests are submitted and appointments are scheduled online to meet with the counselor	61	2.72	.84
9. If individuals convey all of their problems to the counseling services through the Internet	61	2.02	.76
10. If e-mail groups are formed and e-mails that contain useful guidance information are sent	61	3.16	.73
11. If the counselor can be reached online at all times	61	2.39	.86
12. If computers are used to store student data	61	3.23	.78
13. If parent interviews are conducted through online videoconferences	61	2.43	.92
14. If computers are used for career counseling	61	3.20	.73
15. If CD rom databases are prepared containing information on personal development in various topics and are used to provide information	61	3.31	.85
16. If communication between classroom teachers and counselors is conducted online	61	2.36	.82
17. If students anonymously state their problems and seek solutions online	61	2.05	.97
18. If a web page is prepared on counseling services	61	3.48	.65
19. If chat rooms are created to counsel students with similar problems at the same time	61	2.51	.85
20. If videoconferencing is used to inform individuals on various subjects	61	3.00	.98

Similarly, the participants reported that *videoconferencing* to inform individuals on various subjects (item 20) was very useful but that videoconferencing with parents (item 13) was only somewhat useful.

Regarding services that are provided *through the Internet*, the participants stated that the use of the Internet for hosting chat rooms, performing assessments, requesting/scheduling meetings, conveying problems, reaching the school counselor, communicating with classroom teachers, and allowing students to search for solutions to their problems anonymously (items 4, 6, 8, 9, 11, 17, 19) was only somewhat useful.

Similarly, the participants stated that the *student data portal* application (item 5) was somewhat useful. Finally, the participants expressed negative opinions about conducting counseling sessions online (item 3), reporting that such sessions were not useful.

Considering the participants' demographic variables, there was no significant difference in the Mann Whitney *U* test results according to gender ($U = 149.00$; $p = 0.365$; $p \leqslant 0.05$). In other words, the opinions of school counselors did not vary according to gender.

The Kruskal Wallis test was applied for age, level of education, length of service, grade level of school, type of school and number of students provided guidance services; the results are presented in Table 2. As shown in Table 2, the Kruskal Wallis H test results for age ($x^2(2) = 1.771$; $p = 0.412$; $p \leqslant 0.05$), educational background ($x^2(2) = 1.253$; $p = 0.535$; $p \leqslant 0.05$), length of service ($x^2(2) = 4.345$;

Table 2
Kruskal Wallis results for age, level of education, length of service, grade level of school, type of school, and number of students served.

Variable	N	Sequence average	SD	χ^2	p
Age					
24–30	30	33.23	2	1.771	0.412
31–40	22	26.98			
41 and above	9	33.39			
Level of education					
PCG[*] bachelor's	42	28.94	2	1.253	0.535
PCG[*] master's	16	33.06			
PCG[*] Ph.D.	3	38.17			
Length of service					
6 months–10 years	36	34.35	2	4.345	0.114
11–20 years	20	24.23			
21–30 years	5	34.00			
School level					
Middle school	17	27.59	2	1.995	0.369
High school	23	27.13			
Middle/high	19	33.97			
Type of institution					
Vocational high school	11	33.95	4	4.598	0.331
Classical middle/high	34	28.28			
Science high	1	8.00			
Anatolian high	4	23.63			
College	9	36.94			
Number of students					
0–150	6	32.58	2	2.272	0.321
151–250	36	27.79			
251–500	18	35.22			

[*] PCG: Psychological Counseling and Guidance.

$p = 0.114$; $p \leqslant 0.05$), grade level of school ($x^2(2) = 1.995$; $p = 0.369$; $p \leqslant 0.05$), type of school ($x^2(2) = 4.598$; $p = 0.331$; $p \leqslant 0.05$), and number of students served ($x^2(2) = 2.272$; $p = 0.321$; $p \leqslant 0.05$) did not show any significant differences.

3. Discussion

The purpose of this study was to determine the opinions of school counselors in North Cyprus concerning the use of ICT in school counseling services. In addition, we sought to learn if there were any significant differences regarding the gender, age, level of education (bachelor's, master's, Ph.D.), tenure, grade level/type of school, or number of students they serve.

In general, school counselors' opinions concerning the use of ICT in school counseling services were positive. This finding supports the findings of Savaş and Hamamcı (2010), Vinluan (2011) and Zeren (2014) who found that the school counselors had a positive attitude to the use of ICT in school counseling.

The current study found no significant differences in the school counselors' opinions according to gender, age, level of education, length of service, grade level of school, type of institution or number of students served. These findings support studies that have examined differences in school counselors' service-based computer and Internet use according to the number of students that counselors serve and the counselors' length of service (Başak et al., 2010), gender, level of education and age (Savaş & Hamamcı, 2010). Roddy's (2013) study also revelaed that, although one would have expected young school counselors (with five or less years of experience) feel higher level of comfort regarding the use of technology than veterans (with six or more years of experience) because they enter the profession with a set of competencies from the ASCA national model, no main effect was found on the comfort level of computers. The same study also revealed

gender and years of experience had no main effect on the comfort level of computers.

This study also demonstrated the dimensions of ICT that school counselors considered to be useful for school counseling services. Specifically, web pages, computer-based programs, e-mail and videoconferencing with the aim of conveying information were considered to be positive ICT applications. These opinions support previous research (Grosshandler, 2012) that established that Internet use and e-mail use are among the preferred ICT applications of school counselors.

However, the school counselors reported doubts about the usefulness of other online services, especially those that require interaction (ie. using chat rooms, performing assessments, holding guidance sessions, conveying problems, reaching the school counselor, communicating with classroom teachers, allowing students to seek solutions to their problems anonymously). The participants' reluctance may be attributed to the lack of sufficient equipment to provide these services online (Othman, 2000) or to the lack of information on the weak and strong points of providing online services (Myers & Gibson, 1999). Due to this lack of resources and information, the counselors may exercise caution to avoid causing harm as a result of their services. They might also be reluctant to utilize interaction-related online services because of differences in families' access to such ICT resources, which may lead to service inequalities (Vargas, 1995). Various studies on ICT in school counseling have indicated that school counselors must have technological literacy (Dear, 2002; Hines, 2002), supplementary training to use technology (Carlson, Portman, & Bartlett, 2006; Schayot, 2008), and quaranteed confidentiality (Sabella, Poynton, & Isaacs, 2010; Van Horn & Myrick, 2001). Therefore, the current study's conclusions highlight a common problem that is found in the literature. Qualitative research on these issues should be conducted to obtain more detailed information.

The current study also found that school counselors had reservations concerning the application of a student information portal. Such reservations may be due to concerns about confidentiality and which data would be accessible through the portal. Finally, this study revealed that school counselors have negative opinions about online counseling. This finding may be related to the lack of ethical principles, the legal inadequacies of online guidance counseling (Bowman & Bowman, 1999; Elleven & Allen, 2003; Maples & Han, 2008; Robson & Robson, 2000; Sampson, Kolodinsky, & Greeno, 1997; Sussman, 2000; Wright, 2002) and concerns that the students' body language, gestures and mimicry cannot be observed in online counseling (Lee, 1998), as shown in the literature. The participants' negative opinions may also be related to their lack of knowledge and skills in the field of online counseling (Othman, 2000 cited in Van Horn & Myrick, 2001). Future studies should examine school counselors' negative opinions about online psychological counseling in greater detail. It is necessary to include some of the studies which revealed positive attitudes of the students toward online counseling. A study conducted in Ghana revealed that students were not willing to provide information in face to face counseling sessions about their main challenges in their life such as drug addictions, prostitutions, and bullying due to the fear of getting these informations to public. They were agreed that e-counseling, without declaring their identity, could help them improve and develop rapidly (Kolog, Sutinen, & Vanhalakka-Ruoho, 2014). Glasheen and Campbell (2009) argued that "Online counseling has the advantage of more flexibility. Instead of students missing classes, they can access the school counselor at other times. The availability of an online counseling service within the school setting would give the young person more privacy and since no one is aware of the student accessing the school counselor, it has the potential to reduce stigmatism from others (p. 14).

4. Conclusion and recommendation

This study suggests that school counselors working in secondary schools in North Cyprus acknowledge the positive gains that rapidly developing technology will bring to school counseling services (Hayden et al., 2008; Savaş & Hamamcı, 2010). Given that school counselors have positive opinions concerning the use of ICT in school counseling applications, it is promising that their opinions do not differ by age, level of education or length of service. In other words, school counselors, no matter what their age, tenure and level of education, are open to integrate ICT in their practices.

This brings the importance of training into the picture. The project aimed to explore the use of ICT in guidance and counseling in Europe (JOBTRIBU, 2012) reported that "...even the most developed counseling systems in Europe, reported low numbers of clients when compared to face to face counseling" (p. 17) and concluded that, in order to integrate ICT in counseling practices, it is necessary to brige development of tools with actual implementation of these instruments in the practices. This is only possible with the training of practitioners.

The authors recognize that research on the integration of ICT with school counseling is still in the preliminary stage in North Cyprus. But the importance of this research findings is to provide a starting point to develop an action plan with regard to integrating ICT in school counseling, to future research, and to counselor education in North Cyprus.

The implications from the study suggest that an action plan to integrate ICT in school counseling is a necessity that schools should provide training to school counselors, develop technical infrastructure to support the use ICT, and managed their budget.

There are many aspects that this study did not answer: What is the technological literacy of school counselors?, What kind of professional development opportunities do school counselors already have?, What do school counselors already use with respect to ICT in their practices and what is their experiences with it? What are the obstacles school counselors perceive? Studies will help to find answers to these questions.

Conflict of interest

The authors declare that they have no conflict of interest.

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